FY 2023-24 Information Technology Capital Budget Requests

Priority						FY 2023-24 Request Details					
OSPB	CCHE	Agency/ Institution	Project Title	Phase	Prior Appropriations	GF/CCF Request	CF Request	FF Request	Total for FY 23-24	Future Requests	Total Est. Project Cost
Department Requests											
1	N/A	Personnel and Administration	Payroll Modernization	2 of 4	$6,000,000	$14,249,228	$ -	$ -	**$14,249,228**	$32,665,638	**$52,914,866**
2	N/A	Health Care Policy and Financing	Medicaid Enterprise Solutions Re-Procurement	1 of 2	$0	$6,043,541	$ -	$46,508,975	**$52,552,516**	$36,879,501	**$89,432,017**
3	N/A	Corrections	Offender Records Management System (DeCORuM)	4 of 4	$29,455,844	$10,054,231	$ -	$ -	**$10,054,231**	$0	**$39,510,075**
4	N/A	Human Services	Information Management Systems and Data Reporting	1 of 1	$0	$2,093,951	$ -	$ -	**$2,093,951**	$3,852,439	**$5,946,390**
5	N/A	Public Health and Environment	Vital Event System of Colorado (VESCO)	2 of 3	$2,440,000	$1,410,064	$ -	$ -	**$1,410,064**	$515,170	**$4,365,234**
6	N/A	Office of Information Technology	Modernizing Aging IT Systems	2 of 2	$53,284,560	$22,655,995	$ -	$ -	**$22,655,995**	$0	**$75,940,555**
7	N/A	Public Health and Environment	Stationary Sources Solution Modernization	2 of 3	$4,099,148	$0	$4,530,695	$ -	**$4,530,695**	$4,373,158	**$13,003,001**
8	N/A	Labor and Employment	Conveyance Database	1 of 1	$0	$0	$693,000	$0	**$693,000**	$0	**$693,000**
9	N/A	Labor and Employment	Vocational Rehabilitation Case Management System	1 of 2	$0	$0	$996,386	$3,681,480	**$4,677,866**	$1,234,465	**$5,912,331**
NP	N/A	Corrections	Human Resources Management System (HRMES)	1 of 1	$0	$2,605,507	$ -	$ -	**$2,605,507**	$0	**$2,605,507**
NP	N/A	Revenue	Specialized Business Group Licensing and Case Management Software	1 of 2	$0	$1,000,000	$ -	$ -	**$1,000,000**	$9,000,000	**$10,000,000**
Higher Education Requests											
NP	1	Colorado State University	Network Hardware Upgrade	3 of 3	$1,897,120	$2,244,053	$748,392	$ -	**$2,992,445**	$0	**$4,889,565**
NP	2	Metropolitan State University of Denver	Network Infrastructure Modernization	3 of 3	$2,545,000	$795,000	$500,000	$ -	**$1,295,000**	$0	**$3,840,000**
NP	3	Community College of Denver	Classroom and Conference Room Technology	3 of 3	$3,327,679	$1,627,899	$103,908	$ -	**$1,731,807**	$0	**$5,059,486**
NP	3	Metropolitan State University of Denver & Colorado School of Mines	Collaboratively Transforming the ERP/SIS Experience	3 of 4	$8,639,000	$11,354,456	$1,146,613	$ -	**$12,501,069**	$10,252,168	**$31,392,237**
NP	5	Community College of Aurora	Improving Server Room	1 of 1	$0	$814,740	$71,093	$ -	**$885,833**	$0	**$885,833**
NP	5	University of Northern Colorado	ERP Modernization & Cloud Migration	1 of 1	$0	$1,291,651	$55,222	$ -	**$1,346,873**	$0	**$1,346,873**
NP	7	Front Range Community College	Network and IT Security Upgrade	1 of 1	$0	$3,420,000	$380,000	$ -	**$3,800,000**	$0	**$3,800,000**
NP	8	Fort Lewis College & Western Colorado University	Next Generation WiFi	1 of 1	$0	$1,760,438	$75,264	$ -	**$1,835,702**	$0	**$1,835,702**
NP	9	Colorado Mesa University	ERP Modernization	1 of 1	$0	$3,290,340	$369,660	$ -	**$3,660,000**	$0	**$3,660,000**
NP	10	Colorado State University - Pueblo	Wireless (WiFi) Technology Infrastructure Upgrade	1 of 1	$0	$810,550	$ -	$ -	**$810,550**	$0	**$810,550**

GF: General Fund; CCF: Capital Construction Fund (state funds); CF: Cash Funds; FF: Federal Funds; NP: Not Prioritized

Fiscal Year 2023-24 Information Technology Request

Personnel and Administration
Payroll Modernization

SHORT PROJECT DESCRIPTION

The Department of Personnel and Administration (DPA) is requesting state funding for phase two of a four phase project to modernize the state's payroll system.

PRIORITY NUMBERS

2023037

Prioritized By	Priority	
OSPB	1 of 21	Recommended for funding.

PRIOR APPROPRIATION AND REQUEST INFORMATION

Fund Source	Prior Approp.	FY 2023-24	FY 2024-25	Future Requests	Total Cost
CCF	$6,000,000	$14,249,228	$17,203,705	$15,461,933	$52,914,866
Total	$6,000,000	$14,249,228	$17,203,705	$15,461,933	$52,914,866

PROJECT STATUS

This request is for phase two of a continuation project. $6.0 million in state funding was appropriated for phase one of this project in FY 2022-23. The department does not anticipate fully encumbering the $6.0 million appropriation for FY 2022-23 and anticipates the need to extend the spending authority into 2023-24.

Background on HRWorks Project. DPA and the Governor's Office of Information Technology (OIT) were appropriated a total of $41.6 million from FY 2014-15 through FY 2019-20 for the Human Resource Information System (HRIS)/ HRWorks project, which was intended to replace the state's existing payroll system and to eliminate or consolidate existing agency human resources systems. In December 2019, DPA requested an additional $12.4 million General Fund to continue working on the project using an agile methodology. However, due to the Covid-19 related budget cuts made by the General Assembly in 2020, DPA did not receive this additional funding for the HRWorks project and the project was terminated. No new systems were implemented with the funding.

PROJECT DESCRIPTION

DPA is requesting year two of four to fund an agile phased approach to modernize the state's payroll system. The current human resources (HR) and payroll systems within the state rely on more than 80 individual systems, including the Colorado Personnel Payroll System (CPPS), which is more than 35 years old. Due to its age, it requires significant manual entry, inconsistent data, and is supported by a small team whose skills are increasingly difficult to find.

In 2021, DPA created a new HRIS Governance Structure consisting of a strategy group, steering committee, and a statewide functional lead and user group. Additionally, the department completed internal assessments with HR Directors, IT Directors, Business Product Directors, and Payroll Professionals/Controllers. Some primary challenges identified were reporting/data accuracy and consistency and a lack of integration across the multiple HR platforms and systems. Additionally, a high-level assessment of the stability of current HRIS applications showed most applications need to be upgraded or replaced.

The department anticipates that the requested funding for the payroll modernization project will cover the following:
- term-limited staffing for the Payroll Agile Development team;
- operating expenses for the new staff;
- an API/integration consultant to help with integration aspects;
- a payroll/human capital management (HCM) consultant to assist with the selection and negotiation of the platform;
- platform usage costs;
- Independent Verification and Validation (IV&V);
- payroll and platform specific training;

- foundational activities, including Project Management Office (PMO) and Organizational Change Management (OCM) strategy development and execution, business and procurement alignment, and enabling IT strategies;
- vendor implementation activities, including configuration and deployment of the payroll replacement;
- inflationary costs; and
- 10 percent contingency.

As of October 2022, DPA had completed the request for information and agency listening sessions.

PROJECT JUSTIFICATION

If the project is not funded, the state runs the risk of having CPPS fail. CPPS is more than 35 years old, is based on COBOL mainframe technology, and has not been supported by a vendor since 2014. The system is used to pay more than 33,000 state employees with a monthly payroll of $180 million, but is currently down approximately 10 percent of working days. Currently, the system is supported by a small team whose skills are increasingly difficult to find in the job market due to the age of the programming language.

COST-BENEFIT ANALYSIS

The department anticipates that this project will result in direct savings of $4.5 million from the decommissioning of CPPS, reduce the state's technical debt, and increase efficiency statewide.

PROJECT COST INFORMATION

For the request as submitted by the department for FY 2022-23, the department provided the following cost estimates for the project:

Agile implementation: $25,716,725 (includes $1.6 million for IV&V and $691,200 for a feasibility study)
New software subscription fees: $12,250,000
Project management: $4,149,625
Term-limited operating expenses: $792,901
Solicitation costs: $240,000
10% contingency: $3,010,635

Based on increasing vendor implementation costs, the department has adjusted the prior year request upward.

Operating budget. The department has estimated that ongoing licensing and subscription costs for the new system are anticipated to be $3.5 million annually following system implementation. The department may also seek funding for additional staffing resources needed to implement future functionalities after the new payroll system is complete.

CASH FUNDS

N/A

PROJECT RESEARCH

DPA and OIT worked together to create the HRIS Governance Structure. The team worked with consultants to review HRWorks and to determine how to proceed. Additionally, they conducted a needs assessment with Executive Branch agencies that identified tool and application pain points, prioritized needs, and current work

In early July 2022, DPA published a request for information (RFI) to gather vendor input, gain additional insight prior to the formal solicitation process, and outline state requirements and parameters.

The department worked with a contractor to review cost estimates for a statewide payroll system. A rough order of magnitude was created after the contractor conducted a market scan of how other states and municipalities are managing HR and payroll modernization.

ADDITIONAL PROJECT INFORMATION

Change Management Plan. The new system would be a department IT project and will be managed according to the standards of OIT's Project Management Office. Training for the project will be developed as the HRIS systems are developed, and will include in-person training, virtual webinars, technical training for the staff supporting the systems, and end-user training. Testing will occur throughout the agile development process testing user-acceptance, system integration, performance, and data mitigation. Stakeholder management will include engagement of all levels within the HRIS Governance Structure, as well as maintaining executive awareness of the project.

Accessibility. The department will work with any vendors to ensure non-visual access and provide Voluntary Project Accessibility Templates which provides accessibility for people with limited capacities to see, hear, or exercise muscular control.

Colorado WINS. The Partnership Agreement by the State of Colorado and Colorado Workers for Innovative and New Solutions (Colorado WINS) requires the state to seek full funding for the implementation of a statewide HRIS. (https://dhr.colorado.gov/about/labor-relations/partnership-agreement) According to the department, this request represents the second request in a phased modernization of a full-scale HRIS that will eventually replace most, if not all, of the state's more than 80 individual HR systems across agencies.

PROJECT SCHEDULE

	Start Date	Completion Date
Planning	July 2021	December 2023
Implementation	July 2023	June 2026
Testing	July 2023	June 2026
Closing	June 2026	June 2026

QUESTIONS

Q. Last year, DPA estimated the total payroll modernization project cost to be $46,159,887. In this year's budget request, the total estimated project cost has increased to $52,914,866. What is the department's explanation for this increase given the procurement process being still underway?

A. The department's FY 2021-22 budget request, $46.2 million, was based on independent research conducted by a nationally recognized IT research firm, Gartner. For FY 2022-23, the department adjusted the prior year request by 7 percent to reflect the aging of Gartner's prices, similar to the model employed for physical capital construction budgeting. However, it is important to point out that Gartner recently stated that vendor implementation costs have risen 15-25 percent. Based upon these estimates, this may result in the need for additional funding in the future.

Q. Does the department need an extension on the spending authority for the FY 2022-23 appropriation for the project, or does the department anticipate fully encumbering the $6 million appropriation before the end of the FY?

A. Due to contract timing and legislative process, the department anticipates the need to extend the spending authority into FY 2023-24.

Q. Please provide an update on the project solicitation process and an estimated timeline for vendor selection.

A. The department engaged Gartner to assist with the development of the solicitation. Gartner and he department are conducting workshops with agencies to draft system requirements for the solicitation. Currently, the department anticipates that the solicitation will be posted mid-December. The solicitation will be posted for 60 days to allow vendors sufficient time to develop proposals. At that time, the department will enter into competitive negotiations with the vendors. Based upon recent

department experience with Invitations to Negotiate (ITNs), the department expects it will take approximately six months to select a vendor.

Q. If the committee still wants to appropriate funding for the project one year at a time, would an $11.7 million appropriation for FY 2023-24 be sufficient to cover anticipated project expenses (based on table 2 of the budget request document)? Relatedly, do the figures in table 2 still reflect the department's anticipated costs and expenditures for the project?

A. As per its submission the department requests $14.4 million for FY 2023-24. The higher amount includes an inflationary adjustment from last year's submission. The amounts in Table 2 reflect the original FY 2021-22 budget submission and do not include the 7 percent inflationary adjustment. The original request amount was included in Table 2 in order to provide the basis of the FY 2022-23 request.

The department understands why the General Assembly may be interested in only appropriating the project on a year to year basis. Ostensibly, this aligns with the department's intention that Payroll Modernization follows an agile implementation approach.

However, phased budgeting does not offer the flexibility commensurate with agile software development. Despite a successful deployment, funding for future phases of the project may not be available resulting in a minimally viable and partially completed system. The state may incur new licensing costs and overhead because the vendor is providing a hosting environment for this minimally viable product. Moreover, a partially completed system could also require additional manual processes and will likely require that the state continue to rely on its 35-year old payroll system.

Also, a year to year funded project may add costs. Contracting rules allow the state to commit to a contract on a year-to-year basis on funds appropriated by the legislature. However, vendors may be less likely to bid on a project that is not fully funded. With reduced competition, those that do bid may bid at a higher cost.

Fiscal Year 2023-24 Information Technology Request

Health Care Policy and Financing
Medicaid Enterprise Solutions Re-Procurement

SHORT PROJECT DESCRIPTION

The Colorado Department of Health Care Policy and Financing (HCPF) is requesting state funding for phase one of a two-phase project to comply with state procurement regulations and the Center for Medicaid Services (CMS) procurement requirements for the department's Medicaid Enterprise Solutions (MES).

PRIORITY NUMBERS

2024017

Prioritized By	Priority	
OSPB	2 of 21	Recommended for funding.

PRIOR APPROPRIATION AND REQUEST INFORMATION

Fund Source	Prior Approp.	FY 2023-24	FY 2024-25	Future Requests	Total Cost
CCF	$0	$6,043,541	$4,241,143	$0	$10,284,684
FF	$0	$46,508,975	$32,638,358	$0	$79,147,333
Total	$0	$52,552,516	$36,879,501	$0	$89,432,017

PROJECT STATUS

This is a new, never-before-requested project.

PROJECT DESCRIPTION

HCPF is requesting state funding for phase one of a two-phase project to comply with state procurement regulations and the CMS procurement requirements for the department's MES.

The project funding would pay a new vendor to transfer data into their system, meet the department's needs to operationalize the module, and facilitate the changes to the vendor's technology. Additionally, it would fund the procurement of the commercial off-the-shelf systems, licensing agreements, and custom systems build for the MES core and modular solutions. The four core MES consist of the Medicaid Management Information System (MMIS), the Pharmacy Benefits Management System (PBMS), the Business Intelligence Data Management (BIDM), and the Colorado Benefits Management System (CBMS). This project will fund the addition or replacement of vendors for the MMIS, PBMS, and BIDM systems as the department undergoes the required re-procurement. There are seven modules within the MMIS, three within the BIDM, and four within the PBMS. The request would fund the contractor to provide implementation support and ensure the project stays on track to meet state and federal deadlines.

PROJECT JUSTIFICATION

Under state procurement rules, the department is required to procure MES-related contracts at a maximum of ten years. Although CMS recommends eight years, Colorado is allowed to follow state procurement rules. Additionally, CMS requires a modular format for MES procurement as federal regulations no longer permit for single vendor solutions. This project would allow for the department to comply with this regulation and ensure continual operation of the department's MES throughout the transition to a new module vendor(s) if one is selected. This request would fund the cost of transitioning to new vendors if one is selected in order to ensure a timely transition and comply with state and CMS procurement requirements.

COST-BENEFIT ANALYSIS

All funding requested is necessary to comply with procurement regulations. Partial funding would put the department at risk of losing federal financial participation. The department has the potential to lose up to $105 million in federal funding the state receives each year if it is not in compliance with these CMS requirements.

PROJECT COST INFORMATION

The department provided the following cost estimates for phase one of the project:

- MMIS design, development, and implementation (DDI) transition costs: $23,682,015
- BIDM DDI transition costs: $11,878,000
- PBMS DDI transition costs: $14,490,000
- 5 percent contingency: $2,502,501

Additional details regarding the cost estimates for each initiative can be found in Attachment A.

CASH FUNDS

N/A

PROJECT RESEARCH

CMS requires that MES contracts be procured in a modular format. The department has selected an Enterprise Solution Integration vendor which has been approved by CMS. Internally, the department is reviewing the contract and anticipates it being signed and executed before the end of FY 2022-23. In order to ensure that the procurement of each MES solution is the most cost-effective long-term solution, an external analysis with other states and modular solution providers will be included. Additionally, an internal alternatives analysis must be completed by the department to identify MES needs before procurement begins.

In 2020, the department completed an internal and external environmental scan and an alternatives analysis with current staff and other states to identify new approaches to the MES ecosystem. Additionally, subject matter experts were interviewed to understand the challenges, strategies, and models addressing the MES. CMS requires outcome-based measures that will be reviewed and approved by CMS prior to the start date of the project. In order to continue receiving federal funding the department must continue to meet the approved outcomes and metrics on an ongoing basis.

ADDITIONAL PROJECT INFORMATION

Change management. The department requires all vendors to deliver a change management plan including the approach to change management, a scope control process, process to monitor and measure scope, testing strategy, training plan, and operational readiness plan.

Accessibility. The department is working with OIT's Technology Accessibility Program Team to work through the implementation of the department's accessibility plan. There is currently a workgroup within the department to determine the high-level impact and costs to the department as well as researching technological solutions.

PROJECT SCHEDULE

	Start Date	Completion Date
Planning	July 2023	December 2023
Implementation	July 2023	June 2025
Testing	June 2023	June 2025
Closing	October 2024	June 2025

QUESTIONS

Q. What happens if a new vendor is not selected and there is no need to fund two vendors at once?

A. The department only needs transition funding if a new vendor is selected for either the core (MMIS, BIDM or PBMS) or a new

modular component. The department would not use the requested funds if no component transitions were needed. In this case the department would revert the funding at the end of FY 2023-24 or request a true-up with a supplemental request and subsequently would not request additional funding in the year two submission.

Q. Are there plans for the department to re-procure CBMS in the future following the modular vendor requirements?

A. The department is currently in the planning stages of the re-procurement of CBMS and is conducting an environmental scan and alternative analysis internally and with other states. The department has not submitted a budget request to re-procure the CBMS system. If a request is needed for transition cost, the department would work with OIT and CDHS to determine the costs and scope of that request.

Q. Pertaining to the budget request project, please describe collaboration and ongoing involvement with the Governor's Office of Information Technology, the Governor's Office of eHealth and Innovation, and any other primary stakeholders. Who are the primary users of the MES ecosystem, and how will the department ensure that it is capturing stakeholder requirements?

A. The department's MES vendor implementations are contingent on meeting OIT state cybersecurity and network architecture policies. OIT is consulted on all new procurements and system implementations and OIT is invited to attend all modular component vendor presentations. The department, Office of eHealth Innovation (OeHI), OIT, and other state agencies collaborate at the Governor's Data Advisory Board monthly (as well as other meetings) which is managed by OIT. The Solutions Integrator is utilizing the OIT integration platform for all future application programming interface exchanges with other agencies.

The department and OeHI collaborate on a weekly basis to ensure OeHI projects are approved by CMS when applicable, and to ensure CMS MES funds for Medicaid related projects and appropriate resources are assigned to projects. This allows the department to define MES integrations with statewide infrastructure (e.g., identity resolution, interagency data sharing). The department and OeHI collaborate on opportunities to utilize the CMS MES funding to support statewide infrastructure investments.

The primary users of the MES ecosystem are Medicaid providers and department staff. The department has a public facing website, which includes MES procurement information, including timelines and modules, which is updated frequently. The department's processes for modular procurement includes an environmental scan to determine how other states' MES environments are constructed as well as alternatives analysis evaluations internally with department subject matter experts (SMEs) and externally with other states. As part of the Organizational Change Management process, the department will meet with provider associations such as the Colorado Hospital Association, Medicaid Advisory Council and Colorado Medical Society to communicate MES procurement updates and obtain feedback that will help ensure the modular component implementation does not impact stakeholders negatively. In developing the procurement requirements, there were several requirement validation sessions held with department SMEs to capture stakeholder requirements, in addition to the federal and state requirements that each module must meet.

Q. Since the MMIS and BIDM vendor contracts end before the planned procurement completion date, and if any of the procurement planned dates slip, does the department have contingencies in place should it need assistance from the existing vendor(s) during the transition and system changes? Will additional funding be needed to extend existing vendor contracts? Please explain.

A. Since the submission of the request, the department has received vendor proposals, and has updated its planned procurement completion dates based on the vendor responses. The MMIS updated schedule is April 2025 for completion. For BIDM, the department has received approval from the Office of the State Controller (OSC) and CMS to extend the existing BIDM contract to June 2025. The department is currently negotiating a contract extension with IBM, the current BIDM vendor, and plans to execute the extension in May 2023. This extension will align to the current estimated procurement completion date of June 2025. If, during the contract negotiations with a new or existing vendor, the department determines that additional funds above the current MMIS appropriation are needed, the department will follow the standard budget process and request additional funds for the maintenance and operation of the MES.

The department's current contracts require the existing vendors to deliver a transition and turnover plan to the department at no additional cost. The transition and turnover plan will include a detailed schedule and plan to complete all activities by the contract

end date. If a component is awarded to a new vendor, the new vendor would also be required to deliver a detailed plan on how they will work with the existing vendor to ensure the data, operations, and processes transition is complete by the contract end date. The department's Enterprise Project Management Office (EPMO) is actively monitoring all schedules and has several risk mitigations plans in place should the procurement dates slip and put contract dates at risk, which include schedule compression plans if needed as well as contingency plans.

Table 1.1
Summary by Line Item
FY 2023-24

Row	Line Item	Total Funds	FTE	Capital Construction Fund	Cash Funds	Reappropriated Funds	Federal Funds	FFP Rate	Notes/Calculations
A	**New Line (2) DEPARTMENT OF HEALTH CARE POLICY AND FINANCING; Medicaid Enterprise Solutions Re-Procurement	$52,552,516	0.0	$6,043,541	$0	$0	$46,508,975	88.50%	Table 2.1 Row E
B	**Total Request**	**$52,552,516**	**0.0**	**$6,043,541**	**$0**	**$0**	**$46,508,975**	**88.50%**	Row A

Table 1.2
Summary by Line Item
FY 2024-25

Row	Line Item	Total Funds	FTE	Capital Construction Fund	Cash Funds	Reappropriated Funds	Federal Funds	FFP Rate	Notes/Calculations
A	**New Line (2) DEPARTMENT OF HEALTH CARE POLICY AND FINANCING; Medicaid Enterprise Solutions Re-Procurement	$36,879,501	0.0	$4,241,143	$0	$0	$32,638,358	88.50%	Table 2.2 Row E
B	**Total Request**	**$36,879,501**	**0.0**	**$4,241,143**	**$0**	**$0**	**$32,638,358**	**88.50%**	Row A

Table 2.1
Summary by Initiative
FY 2023-24

Row	Item	Total Funds	FTE	Capital Construction Fund	Cash Funds	Reappropriated Funds	Federal Funds	FFP Rate	Notes/Calculations
A	MMIS DDI Transition Costs	$23,682,015	0.0	$2,723,433	$0	$0	$20,958,582	88.50%	Table 3.1 Row O
B	BIDM DDI Transition Costs	$11,878,000	0.0	$1,365,970	$0	$0	$10,512,030	88.50%	Table 4.1 Row J
C	PBMS DDI Transition Costs	$14,490,000	0.0	$1,666,350	$0	$0	$12,823,650	88.50%	Table 5.1 Row K
D	5% Project Contingency	$2,502,501	0.0	$287,788	$0	$0	$2,214,713	88.50%	5% of Rows A through C
E	**Total Request**	**$52,552,516**	**0.0**	**$6,043,541**	**$0**	**$0**	**$46,508,975**	**88.50%**	Sum of Rows A through D

Table 2.2
Summary by Initiative
FY 2024-25

Row	Item	Total Funds	FTE	Capital Construction Fund	Cash Funds	Reappropriated Funds	Federal Funds	FFP Rate	Notes/Calculations
A	MMIS DDI Transition Costs	$25,314,534	0.0	$2,911,172	$0	$0	$22,403,362	88.50%	Table 3.2 Row O
B	BIDM DDI Transition Costs	$6,348,800	0.0	$730,112	$0	$0	$5,618,688	88.50%	Table 4.2 Row J
C	PBMS DDI Transition Costs	$3,460,000	0.0	$397,900	$0	$0	$3,062,100	88.50%	Table 5.2 Row H
D	5% Project Contingency	$1,756,167	0.0	$201,959	$0	$0	$1,554,208	88.50%	5% of Rows A through C
E	**Total Request**	**$36,879,501**	**0.0**	**$4,241,143**	**$0**	**$0**	**$32,638,358**	**88.50%**	Sum of Rows A through D

Table 3.1
Medicaid Enterprise System DDI Transition Costs
FY 2023-24

Row	Item	Type	Total Fund	Capital Construction Fund	Federal Fund	Match Rate	Notes
A	MMIS System	Core System	$8,423,710	$968,727	$7,454,983	88.50%	MMIS transition cost estimated at 85% of FY 2023-24 M&O budget
B	**MMIS CORE System Transition Costs**		**$8,423,710**	**$968,727**	**$7,454,983**	**88.50%**	**Row A**
C	EDI Module	Module System	$2,978,841	$342,567	$2,636,274	88.50%	Other states contracts
D	Provider Call Center	Module System	$1,732,353	$199,221	$1,533,132	88.50%	Other states contracts
E	TPL Module	Module System	$1,000,000	$115,000	$885,000	88.50%	Other states contracts
F	CCM DDI	Module System	$3,152,251	$362,509	$2,789,742	88.50%	Other states contracts
G	Claims Editing Solution	Module System	$757,895	$87,158	$670,737	88.50%	Other states contracts
H	Electronic Visit Verification	Module System	$619,507	$71,243	$548,264	88.50%	Other states contracts
I	CMS Interoperability and Patient Access	Module System	$1,533,458	$176,348	$1,357,110	88.50%	Other states contracts
J	**MMIS Module Systems Transition Costs**		**$11,774,305**	**$1,354,046**	**$10,420,259**	**88.50%**	**Sum of Row C through I**
K	Business Analyst Support	Admin Resource	$1,820,000	$209,300	$1,610,700	88.50%	Assumed 2080 Hours
L	Contract Management Support	Admin Resource	$832,000	$95,680	$736,320	88.50%	Assumed 2080 Hours
M	Project Management Support	Admin Resource	$832,000	$95,680	$736,320	88.50%	Assumed 2080 Hours
N	**Admin MMIS Reprocurment Resources**		**$3,484,000**	**$400,660**	**$3,083,340**	**88.50%**	**Sum of Row K through M**
O	**Total MMIS Transition Costs**		**$23,682,015**	**$2,723,433**	**$20,958,582**	**88.50%**	**Row B + Row J + Row N**

Table 3.2
Medicaid Enterprise System DDI Transition Costs
FY 2024-25

Row	Item	Type	Total Fund	Capital Construction Fund	Federal Fund	Match Rate	Notes
A	MMIS System	Core System	$9,359,084	$1,076,295	$8,282,789	88.50%	MMIS transition cost estimated at 85% of FY 2023-24 M&O budget
B	**MMIS CORE System Transition Costs**		**$9,359,084**	**$1,076,295**	**$8,282,789**	**88.50%**	**Row A**
C	EDI Module	Module System	$3,309,823	$380,630	$2,929,193	88.50%	Other states contracts
D	Provider Call Center	Module System	$1,924,837	$221,356	$1,703,481	88.50%	Other states contracts
E	TPL Module	Module System	$500,000	$57,500	$442,500	88.50%	Other states contracts
F	CCM DDI	Module System	$3,502,501	$402,788	$3,099,713	88.50%	Other states contracts
G	Claims Editing Solution	Module System	$842,105	$96,842	$745,263	88.50%	Other states contracts
H	Electronic Visit Verification	Module System	$688,342	$79,159	$609,183	88.50%	Other states contracts
I	CMS Interoperability and Patient Access	Module System	$1,703,842	$195,942	$1,507,900	88.50%	Other states contracts
J	**MMIS Module Systems Transition Costs**		**$12,471,450**	**$1,434,217**	**$11,037,233**	**88.50%**	**Sum of Rows C through I**
K	Business Analyst Support	Admin Resource	$1,820,000	$209,300	$1,610,700	88.50%	Assumed 2080 Hours
L	Contract Management Support	Admin Resource	$832,000	$95,680	$736,320	88.50%	Assumed 2080 Hours
M	Project Management Support	Admin Resource	$832,000	$95,680	$736,320	88.50%	Assumed 2080 Hours
N	**Admin MMIS Reprocurment Resources**		**$3,484,000**	**$400,660**	**$3,083,340**	**88.50%**	**Sum of Row K through M**
O	**Total MMIS Transition Costs**		**$25,314,534**	**$2,911,172**	**$22,403,362**	**88.50%**	**Row B + Row J + Row N**

Table 4.1
Enterprise Date Warehouse System: DDI Transition Costs
FY 2023-24

Row	Item	Type	Total Fund	Capital Construction Fund	Federal Fund	Match Rate	Notes
A	Enterprise Data Warehouse	Core System	$7,200,000	$828,000	$6,372,000	88.50%	Vendor Estimate and Other State's Transition Contracts
B	**BIDM Base System Transition Costs**		**$7,200,000**	**$828,000**	**$6,372,000**	**88.50%**	**Row A**
C	Provider Performance and Quality Management	Module System	$2,050,000	$235,750	$1,814,250	88.50%	Vendor Estimate and Other State's Transition Contracts
D	Recovery Tracking	Module System	$900,000	$103,500	$796,500	88.50%	Vendor Estimate and Other State's Transition Contracts
E	Program Integrity	Module System	$1,000,000	$115,000	$885,000	88.50%	Vendor Estimate and Other State's Transition Contracts
F	**BIDM Module Systems Transition Costs**		**$3,950,000**	**$454,250**	**$3,495,750**	**88.50%**	**Sum of Row C through E**
G	Business Analyst Support	Admin Resource	$364,000	$41,860	$322,140	88.50%	Assumed 2080 Hours
H	Testing and Release Management Support	Admin Resource	$364,000	$41,860	$322,140	88.50%	Assumed 2080 Hours
I	**Admin BIDM Re-procurement Resources**		**$728,000**	**$83,720**	**$644,280**	**88.50%**	**Sum of Row G through H**
J	**Total BIDM DDI Transition Costs**		**$11,878,000**	**$1,365,970**	**$10,512,030**	**88.50%**	**Row B + Row F + Row I**

Table 4.2
Enterprise Date Warehouse System: DDI Transition Costs
FY 2024-25

Row	Item	Type	Total Fund	Capital Construction Fund	Federal Fund	Match Rate	Notes
A	Enterprise Data Warehouse	Core System	$2,000,000	$230,000	$1,770,000	88.50%	Vendor Estimate and Other State's Transition Contracts
B	**BIDM Base System Transition Costs**		**$2,000,000**	**$230,000**	**$1,770,000**	**88.50%**	**Row A**
C	Provider Performance and Quality Management	Module System	$1,000,000	$115,000	$885,000	88.50%	Vendor Estimate and Other State's Transition Contracts
D	Recovery Tracking	Module System	$600,000	$69,000	$531,000	88.50%	Vendor Estimate and Other State's Transition Contracts
E	Program Integrity	Module System	$2,000,000	$230,000	$1,770,000	88.50%	Vendor Estimate and Other State's Transition Contracts
F	**BIDM Module Systems Transition Costs**		**$3,600,000**	**$414,000**	**$3,186,000**	**88.50%**	**Sum of Row C through E**
G	Business Analyst Support	Admin Resource	$374,400	$43,056	$331,344	88.50%	Assumed 2080 Hours
H	Testing and Release Management Support	Admin Resource	$374,400	$43,056	$331,344	88.50%	Assumed 2080 Hours
I	**Admin BIDM Re-procurement Resources**		**$748,800**	**$86,112**	**$662,688**	**88.50%**	**Sum of Row G through H**
J	**Total BIDM DDI Transition Costs**		**$6,348,800**	**$730,112**	**$5,618,688**	**88.50%**	**Row B + Row F + Row I**

Table 5.1
Pharmacy Benefit Management System DDI Transition Costs
FY 2023-24

Row	Item	Type	Total Fund	Capital Construction Fund	Federal Fund	Match Rate	Notes
A	PBMS Base System	Core System	$9,380,000	$1,078,700	$8,301,300	88.50%	Vendor Estimate and Other State's Transition Contracts
B	**PBMS Base System Transition Costs**		**$9,380,000**	**$1,078,700**	**$8,301,300**	**88.50%**	**Row A**
C	Rebate Admin	Module System	$2,280,000	$262,200	$2,017,800	88.50%	Vendor Estimate and Other State's Transition Contracts
D	PDL Purchasing	Module System	$500,000	$57,500	$442,500	88.50%	Vendor Estimate and Other State's Transition Contracts
E	RTBI	Module System	$400,000	$46,000	$354,000	88.50%	Vendor Estimate and Other State's Transition Contracts
F	Opioid Risk Metric Tool	Module System	$1,280,000	$147,200	$1,132,800	88.50%	Vendor Estimate and Other State's Transition Contracts
G	**PBMS Module Systems Transition Costs**		**$4,460,000**	**$512,900**	**$3,947,100**	**88.50%**	**Sum of Row C through F**
H	Pharmacist Support	Admin Resource	$350,000	$40,250	$309,750	88.50%	Assumed 2080 Hours
I	Business Analyst Support	Admin Resource	$300,000	$34,500	$265,500	88.50%	Assumed 2080 Hours
J	**Admin PBMS Re-procurement Resources**		**$650,000**	**$74,750**	**$575,250**	**88.50%**	**Sum of Row J through I**
K	**Total PBMS Transition Costs**		**$14,490,000**	**$1,666,350**	**$12,823,650**	**88.50%**	**Row B + Row G + Row J**

Table 5.2
Pharmacy Benefit Management System DDI Transition Costs
FY 2024-25

Row	Item	Type	Total Fund	Capital Construction Fund	Federal Fund	Match Rate	Notes
A	PBMS Base System	Core System	$2,345,000	$269,675	$2,075,325	88.50%	Vendor Estimate and Other State's Transition Contracts
B	**PBMS Base System Transition Costs**		**$2,345,000**	**$269,675**	**$2,075,325**	**88.50%**	**Row A**
C	Rebate Admin	Module System	$570,000	$65,550	$504,450	88.50%	Vendor Estimate and Other State's Transition Contracts
D	PDL Purchasing	Module System	$125,000	$14,375	$110,625	88.50%	Vendor Estimate and Other State's Transition Contracts
E	RTBI	Module System	$100,000	$11,500	$88,500	88.50%	Vendor Estimate and Other State's Transition Contracts
F	Opioid Risk Metric Tool	Module System	$320,000	$36,800	$283,200	88.50%	Vendor Estimate and Other State's Transition Contracts
G	**PBMS Module Systems Transition Costs**		**$1,115,000**	**$128,225**	**$986,775**	**88.50%**	**Sum of Row C through F**
H	**Total PBMS Transition Costs**		**$3,460,000**	**$397,900**	**$3,062,100**	**88.50%**	**Row B + Row G**

Fiscal Year 2023-24 Information Technology Request

Corrections

Offender Records Management System

SHORT PROJECT DESCRIPTION

The Department of Corrections (DOC) has requested additional state funding to complete the DOC Offender Records Management System (DeCORuM) project, which was first funded in FY 2014-15.

PRIORITY NUMBERS

2015110

Prioritized By	Priority	
OSPB	3 of 21	Recommended for funding.

PRIOR APPROPRIATION AND REQUEST INFORMATION

Fund Source	Prior Approp.	FY 2023-24	FY 2024-25	Future Requests	Total Cost
CCF	$29,455,844	$10,054,231	$0	$0	$39,510,075
Total	$29,455,844	$10,054,231	$0	$0	$39,510,075

PROJECT STATUS

This request is for phase four of a continuation project. A total of $29.5 million has been appropriated for the project since FY 2014-15.

- $5.8 million was appropriated for phase one in FY 2014-15
- $11.0 million was appropriated for phase two in FY 2015-16
- $12.6 million was appropriated for phase three in FY 2017-18

PROJECT DESCRIPTION

Beginning in FY 2014-15, DOC, in cooperation with the Governor's Office of Information Technology (OIT), requested state funds for a project to replace the department's outdated legacy computer system, the Department of Corrections Information Management System (DCIS). In its place, a fully integrated electronic offender management system (eOMIS) will be implemented that encompasses offender management, electronic health records (EHR), and post-incarceration data. It will include 36 customized application models. According to the latest update, 17 modules are in production, 3 are in process, and 16 are not yet in production.

Phase one of the project gathered, developed, and released a request for proposal which was awarded to Marquis Software Development, Inc., to implement a commercial off-the-shelf (COTS) electronic offender management system. Phase two of the project funds the replacement of the DCIS with the eOMIS as well as migrating all the data. This funding request is a continuation of phase three which integrates the C-WISE system and Colorado State Board of Parole's standalone system. Additionally it includes enhancements of the following modules:

- EHR;
- inmate orders;
- street gangs;
- contact with parolees;
- goods and services;
- inmate mail;
- food services;
- laundry;
- victim services;
- law library;
- public reading material;

- inmate banking;
- incident tracking;
- vocational training;
- visiting;
- volunteers; and
- education programs.

In January 2020, DOC requested a three-year time extension on its spending authority for FY 2017-18 funding which was set to expire in June 2020. At the time, DOC had $7.5 million of funding left. The department stated they would not need additional funding. However, DOC is requesting $10,054,234 for FY 2023-24 to complete the DeCORuM project.

PROJECT JUSTIFICATION

Currently about half of the eOMIS have been implemented into production. Once put into production, the legacy module is decommissioned, making it impossible to revert back. If the project were not funded DOC would be in the position of being caught between the legacy and eOMIS systems leading to an increase in funding to maintain.

The legacy systems span over 30 years of outdated technology. In addition to being costly to maintain, the legacy systems are a large security risk. Currently, there is concern from OIT around current security requirements not being met. Additionally, there is a limited, diminishing pool of programmers that have the ability to work with DCIS. The last DCIS programmer in the department is expected to retire in four years.

The project will create a single software solution to replace all the applications and a single source for data entry which will provide more security, consistency, and cohesiveness of information for the department's use. Modern data systems offer the ability to use the data for tracking inmates' needs and progress over time; by county jails to access inmate information; by staff for reporting capabilities to help manage programs, services, and key operations; and for post-incarceration information. The current parole information management system, Colorado Web-based Integrated Support Environment (C-WISE), is satisfactory for many parole and community service needs. However, DCIS maintains some post-incarceration data which means C-WISE will have to be replaced with an integrated system that supports all data necessary on inmates under the management of parole and community services management.

COST-BENEFIT ANALYSIS

DOC was unable to quantify cost savings as required in Section 24-37-304(1)(c.5)(V), C.R.S., but states the system faces catastrophic failure being a decade past the projected end of life. Additionally, continuing with the old system leaves DOC and the state outside of state and federal IT security protocols, standards, and laws.

PROJECT COST INFORMATION

The department provided the following cost estimates for the project:

- Staffing: $9.4 million
- VBlock Maintenance Renewal: $400,000
- Oracle License: $400,000

CASH FUNDS

N/A

PROJECT RESEARCH

In 2012, OIT contracted IBM to develop the "Operational Risk Assessment" of state IT programs. The assessment identified DCIS as one of ten systems that pose the greatest risk to the State due to the system age, size, and limited availability of IT staff, limited resources, and lack of modernization plan. The findings stated the system is obsolete, difficult to maintain, and lacks modern functionality.

ADDITIONAL PROJECT INFORMATION

DOC provided the following training and testing plan.

Training:
- business process training due to changes as a result of the technology;
- system training; and
- technical training for resources supporting the system.

Training media includes instructor-led classes, videos, on-demand computer-based training, and online help.

Testing:
- user-acceptance testing;
- unit testing;
- system integration system;
- performance testing;
- data migration testing; and
- automated regression testing.

PROJECT SCHEDULE

	Start Date	Completion Date
Planning	July 2023	December 2023
Implementation	July 2023	June 2026
Testing	July 2023	June 2026
Closing	July 2023	June 2026

QUESTIONS

Q. What will you do to ensure the pharmacy module does not fail again?

A. Due to pharmacy policy conflicts between DOC and the vendor application the Pharmacy module is on hold until the end of the DeCORuM implementation. Effectively, being the last module. This decision was made to allow for time and attention to be provided to make the best decision for the future of DOC Pharmacy. Moving the Pharmacy Module to the end will help provide the time to make the best decision for DOC and ensure that the required actions to carry out that decision are well thought out and effectively implemented.

Q. The table on page 5 of the budget request document lists $9.3 million for “staffing”. Please provide additional information and itemized details related to these costs.

A. The Decision Item covers the next 3 fiscal years. With the new labor rates provided by OIT this is how the numbers breakdown considering a 3% increase per year.

7 full time employees (FTE)
- FY 2023-24 $1,042,518.37
- FY 2024-25 $1,073,793.92
- FY 2025-26 $1,106,007.74

9 Contractor Positions
- FY 2023-24 $1,849,640.00
- FY 2024-25 $1,905,129.20

- FY 2025-26 $1,962,283.08

1 Open Position
- FY 2023-24 $132,725.52
- FY 2024-25 $136,707.29
- FY 2024-26 $140,808.50

Q. In 2020 the department received an extension for the spending authority timeline for the FY 2017-18 capital appropriation. The spending authority is now set to expire in 2023; does the department anticipate needing an additional extension for those funds?

A. Yes. OSPB approved DOC's DeCORuM Maintenance & Support decision item with a request for an extension and increase of $1,953,746 General Fund (GF) spending authority in FY 2024-25.

Q. The budget request explains that the "inclusion of the Parole Board application is key to the complete integrated system. Implementation of a fully-integrated inmate management system spanning from admissions to discharge from parole is an integral part of the long-term strategy to enhance the overall efforts of the department to prepare each inmate to be a law-abiding citizen upon discharge from the custody of the department." Please explain how additional funding for a technical solution will improve these goals in comparison to using the existing system, and the results of any cost benefit analysis.

A. The current system is at end of life and the vendor will not agree to a contract extension. Support will end in 2023. The Parole Board Application's functionality is sufficiently interdependent on both facility and parole case management systems. Maintaining each application independently as a legacy application would create burdensome continued financial investment and commitment of OIT resources to support. Additionally, the Parole Board's functionality is part of the existing contract content and being developed simultaneously with Adult Parole's functionality within the eOMIS Phase III release.

Q. Another program used by the department is the Offender Release of Information Law Enforcement (ORILE) system, which serves as a portal for county jails to login and access inmate information, including health records involving diagnoses, medications, and immunizations. However, this is a "one way" exchange, meaning the system is designed to transmit, but not receive data. Who currently maintains ORILE, OIT, the vendor, or both? Please also provide an estimate to add a two-way exchange.

A. OIT manages and maintains applications. Currently hosted on premise, on the same server as the Offender Locator Tool located at DOC HQ. External entities can view/add information so there is some limited two-way exchange. Once entered into ORILE the data only resides in ORILE and is not bridged back to or made available to other applications. There are many discussions surrounding how we can expand the Secure Portal that is being created for DeCORuM for use by Community Partners to access health records. There is the potential for discovery on a full solution that would satisfy, secure Two Factor Authentication access and data sharing for ORILE, Community Partners, Cures Act, and CORHIO.

Q. The budget request says that "as the department is replacing DCIS, it is necessary to replace C-WISE with an integrated system capable of housing all necessary data on inmates under the management of parole and community services." Please explain technically why the C-WISE technical platform is not capable of integration.

A. The current vendor, BI, has expressed an interest in ending their relationship specifically with the maintenance, upgrades and support of the C-WISE software, therefore it is in an end of life state. Examples of this are failure to complete new programming requests in C-WISE the 12 months prior to data conversion for the DeCORuM transition and failing to upgrade the application to keep pace with industry standards. The C-WISE application is outdated technology. It does not support Two Factor Authentication, nor is it independently compatible with Google Chrome. A Chrome Extension compatibility solution had to be researched and deployed by OIT to maintain operations once Internet Explorer 11 was at end of life and no longer a supported browser. C-WISE only supports IE 11 without the extension, and a complex set of data transfers are required to bidirectionally transfer data into both systems. C-WISE is hosted by the vendor, while eOMIS is hosted more securely on site using Virtual Machines in the DOC data center.

Q. The budget request includes the cost for training. Please provide the training total estimate. What is the difference between system training and technical training? What type of resources are supporting the system? For example, what roles do OIT, and the vendor(s) have in supporting the existing system?

A. The cost for training is built into the modules and initial test scripts are what is provided by the vendor as each module is moved into the test region. The cost of each module varies based on the size of the module. We also have 2 OIT testing specialists that are part of the personnel funding in the decision item. Next, the DOC has a subject matter expert (SME) team that sets up Google Classrooms to train the staff. These are monitored and maintained by the DOC SME team but available for both the vendor and OIT to connect and respond to questions or participate in software demonstrations hosted by the vendor.

Q. During the update to the JTC on October 18th, it was stated that even after the completion of the DeCORuM project parts of the DCIS legacy system will need to remain in operation. Is this accurate? If so, what will the legacy system be used for? If not, will the DCIS be able to be decommissioned after the completion of the remaining modules for the DeCORuM project?

A. Yes both DCIS and the Informix DB will need to remain operational. There are many systems within DCIS that use either the Informix DB and DCIS or just one part or the other. These systems include DOC staff payroll, HRMES, ORILE, IGOR, JCAP.

The list of known applications to be decommissioned:
- DOCNet - IDOC
- DOCNet - QMP
- DOCNet - RMMS
- DOCNet - MONREP
- DOCNet - Offender Portal
- DOCNet - Aca Reports
- DOCNet - JCAP Application (SB 180)
- DOCNet - Parole Board Application Hearing (PBH)
- DOCNet - Parole Board Action Notices (PBH-AN)
- DOCNet - Unofficial Transcript (Drupal Embedded App)
- DOCNet - HB151122
- DCIS - Note only offender based pieces
- PCDCIS - Note only offender based pieces
- CTAP
- CTAP Reporting
- C-WISE

The list of known application to be replaced or rewritten include:

- DOCNet - Training Information System (TIS)
- DOCNet - Employee Information Network (EIN) (Embedded DOCNET App)
- DOCNet - IGOR
- DOCNet - Training Enrollment
- DOCNet - Special Teams Application
- DOCNet - Suggestion Box (SA/LV)
- DOCNet - PREA Background Check
- DOCNet - Restricted ARs (Embedded DOCNET App)
- DOCNet - Clinical Standards
- DOCNet - IGOR DDP
- DOCNet - Employee COVID Tracker
- DOCNet - Offender COVID Tracker
- DOCNet - Parole Lobby System
- DOCNet - Find Staff (Drupal Embedded Application)
- DOCNet - Query Training Records (Drupal Embedded App)
- DOCNet - Video Scheduling (Drupal Embedded App)
- DOCNet - Barcode Generator (Drupal Embedded App)
- HRMES

- DOCNet - Video Scheduling (Drupal Embedded App)
- DOCNet - Early Transition Reports (Embedded DOCNET App) - Probably move to Reports
- DOCNet - Bulletin Board (Embedded DOCNET App) - Move as Part of DOCNET Drupal Upgrade
- DOCNet - Leave Balances (Embedded DOCNET App) - Probably move to Reports
- DOCNet - Announcements (Embedded DOCNET App) - Move as Part of DOCNET Drupal Upgrade
- ORILE
- Offender Locator
- CITRIX XenDesktop
- DCIS - Note only employee based pieces
- PCDCIS - Note only employee based pieces
- File Transfers / Interfaces

Q. Please define PCDCIS databases, including how it relates to the budget request.

A. The eOMIS application will replace about 70 percent of the legacy application functionality. The eOMIS application has data dependencies with back bridges, forward bridges, and web services that rely on Informix data. The accumulated technical debt has impacted performance, recovery and created security risk. The project end date of decommission applications is about a year out but has been moved several times over the life of the project.

Q. Slide 6 of the update given to the JTC on October 18th provides an overview of the DeCORuM modules. Is it anticipated that the funding being requested will accomplish moving the remaining modules into production? Please provide a detailed timeline for the project with goals of module production dates for each of the modules as listed on the slide.

A. - OTR (Offender Transfer and Release) 01/09/2023
- ITS (Investigation Tracking and Statistics) 06/30/2023
- PCA(Parole Commission Actions) 06/30/2023
- PPS(Parole & Probation Supervision) 06/30/2023
- GDM(Geospatial Data Mapping) 06/30/2023
- IBS(Inmate Banking System) 09/30/2024
- COP(Court Ordered Payments) 09/30/2024
- CIS(Canteen Inventory & Sales) 09/30/2024
- IGT(Inmate Grievance Tracking) 12/15/2024
- IVT(Inmate Visitation Tracking) 12/15/2024
- IRT(Incident Report Tracking) 2/15/2025
- ISS(Inmate Security Status) 05/15/2025
- IPI(Inmate Property Inventory) 05/15/2025
- IRH(Inmate Restrictive Housing) 07/15/2025
- IPM(Inmate PREA Management) 07/15/2025
- STG(Security Threat Group) 09/15/2025
- ODS(Offender Decision Support) 09/15/2025
- System Maintenance and Change Orders 06/30/2026
- Pharmacy 6/30/2026

Fiscal Year 2023-24 Information Technology Request

Human Services

Information Management Systems and Data Reporting

SHORT PROJECT DESCRIPTION

The Department of Human Services (CDHS) is requesting state funding for phase one of a three-phase project involving the purchase, development, and enhancement of a range of different data and information systems for the Office of Civil and Forensic Mental Health (OCFMH).

PRIORITY NUMBERS

2024018

Prioritized By	Priority	
OSPB	4 of 21	Recommended for funding.

PRIOR APPROPRIATION AND REQUEST INFORMATION

Fund Source	Prior Approp.	FY 2023-24	FY 2024-25	Future Requests	Total Cost
CCF	$0	$2,093,951	$2,205,218	$1,647,221	$5,946,390
Total	$0	$2,093,951	$2,205,218	$1,647,221	$5,946,390

PROJECT STATUS

This is a new, never-before-requested project.

PROJECT DESCRIPTION

CDHS is requesting state funding for phase one of a three-phase project involving the purchase, development, and enhancement of a range of different data and information systems for the OCFMH. The OCFMH operates two mental health institutes in the state: the Colorado Mental Health Institute at Pueblo and the Colorado Mental Health Institute at Fort Logan. The OCFMH also includes the Forensic Services Division, which serves individuals who have been court ordered to the department for competency evaluations, competency restoration services, and community-based supervision. The OCFMH collects highly sensitive information, including data related to criminal proceedings and personal health information, which is currently stored in various disconnected systems.

A consent decree filed in 2019 between CDHS and Disability Law Colorado outlined timelines the department must follow for wait times for court-ordered competency services. One of the recommendations from the consent decree was to improve the OCFMH data infrastructure. In response, Senate Bill 19-223 included an appropriation of $350,000 for the initial development of a data warehouse for the mental health institutes.

Funding from this project would be used to make enhancements to that data warehouse and build new systems, which will be integrated into existing systems as applicable. The department plans to use this funding to undertake these various projects outlined below as part of a coherent strategic plan to ensure system effectiveness and cohesiveness.

Individual components of the project include the following:

1. The implementation of the RL-Datix system to provide a critical incident reporting system, which will allow critical incidents to be reported and securely added to the data warehouse.

2. The purchase of additional electronic health record modules within the Cerner contract that are necessary for patient care, such as the Population Management module, which will assist office clinicians with patient care and administrative reporting.

3. The development of an integrated and automated performance dashboard that will eliminate the office's current use of a consulting firm to tabulate metrics using Excel spreadsheets.

4. The development of an observation tracking system that will allow office staff to more easily compile and track data elements related to observation and reports.

5. The implementation of systems for research data collection, including staff surveys and post-discharge surveys.

6. The development of tools to allow for the tracking of staff skill competency and integrated online learning.

7. The development of tools to allow for the tracking of staff credentialing and physician performance through professional evaluations.

8. The potential addition of other data points to the data warehouse in addition to the current data that is focused on the data required for the consent decree.

9. The purchase of software to allow for the tracking of risk management, reserves, and litigation.

10. The implementation of a system to track assets at the mental health institutes.

11. The purchase of a central pharmacy supply and inventory system.

12. The development of enhancements to the department's RedCap system, which is currently used to collect employee immunization information, to include other employee health data that is currently collected on paper.

13. The modernization of three databases that are currently in Microsoft (MS) Access that include financial information and position tracking, and the enhancement of the functionality of these systems.

PROJECT JUSTIFICATION

The goal of the project is to increase staff efficiency and improve the office's data security. The OCFMH currently collects data and stores it in various disconnected systems. This has resulted in problems with communication gaps, which has impacted patient care, compliance with legal and treatment requirements, and data reporting. Office staff are also spending significant time manually entering, retrieving, and validating data.

The data warehouse built with the funding from SB 19-223 needs to be updated to include new data points so that staff no longer needs to use MS Access custom databases, which do not meet the security needs of the stored sensitive data.

COST-BENEFIT ANALYSIS

According to CDHS, significant staff time is spent manually entering, retrieving, and validating data. Examples provided by the department include the following:

- approximately one hour per day is spent by each member of the forensic services team going through spreadsheets manually seeking out updated court orders for their clients;
- a combined 80 hours during the first week of every month is spent by the outpatient restoration team manually tracking the receipt of monthly provider assessment reports and submitting them to the courts; and
- more than 13 hours per week is spent by the court services team on manually intensive and redundant data entry.

The department anticipates that the projects funded by this request will improve staff efficiency and greatly reduce the staff hours spent on these items and others.

PROJECT COST INFORMATION

The cost estimates provided by the department for the three years of the project are included as Attachment A.

Operating impact. The OCFMH has also submitted an operating budget request to the Joint Budget Committee for 3.0 FTE ongoing to support the additional systems and data reporting that are planned to be developed in this IT capital request (CDHS R-14). Additionally, the department estimates that the ongoing operating costs of the various systems being implemented will be approximately 10 percent of the total project budget, or around $600,000.

CASH FUNDS

N/A

PROJECT RESEARCH

The Forensic Services Division within the OCFMH conducted a discovery and assessment needs analysis in May 2021 to identify the challenges associated with the disparate and isolated solutions that division staff have developed to meet the timelines outlined in the consent decree.

Specific project cost estimates were estimated using information from OIT, researching industry resources, and obtaining quotes from certain vendors. The table provided in Attachment A also lists assumptions the department used to develop the cost estimates.

ADDITIONAL PROJECT INFORMATION

N/A

PROJECT SCHEDULE

	Start Date	Completion Date
Planning	July 2023	December 2023
Implementation	August 2023	June 2026
Testing	August 2023	June 2026
Closing	December 2023	June 2026

QUESTIONS

Q. How much funding was appropriated to the department in Senate Bill 19-223 for the initial build of the data warehouse and what is the current status of that project? Did the department also receive an appropriation for the ongoing cost of the data warehouse, and, if so, how much?

A. Senate Bill 19-223 included a $350,000 appropriation to the department in FY 2019-20 to develop a data management system. The bill did not include an appropriation for the data management system for subsequent years, although it did include one ongoing FTE to administer the system and two ongoing FTE for data management analyst positions. The two data management positions are currently vacant due to staffing challenges.

Q. If only partial funding is available, how would the department prioritize the components outlined in tables 1 and 2, along with their associated costs? Relatedly, what concerns would the department have if the Joint Technology Committee recommended only appropriating funding for the items listed under year 1, for a total of $2,093,951, and requesting that the department come back next year to request funding for year 2?

A. If only partial funding or only funding for year 1 were approved, the department would collaborate with leadership from the Office of Civil and Forensic Mental Health including the CEOs of the Mental Health Hospitals and the Director of the Forensic Services Division to determine priority areas of focus for the Information Management team. The process of triaging which portions of the project could be completed would depend on very careful collaboration between program leadership, who know which work is most urgent to patient and client care and management, and the Information Management team, whose expertise is necessary in order to assess what technical components are necessary to support that work.

The concern with having to request the second year of funding separately from the first year is that this large and important project will take multiple years to complete. At the end of one year of work, we would not have a finished product that would be usable, and if funding were not renewed that work would be lost to a half-finished product. On the other hand, if we knew we had

funding for only one year and considered the possibility of funding not being renewed, the design of the project at the end of the year would be less thorough and less holistic. Then, even if funding were renewed in future years, the project would be fragmented since it had been created in pieces, resulting in a less elegant and user-friendly product to support our clinical staff and, ultimately, our clients.

While the information management team would work with clinical staff to establish priorities if funding were limited in any way, it would likely mean that the end product will lack functionality that is intended to remove the necessity for clinical staff to manually manage data. As a result, any projects that are not prioritized will continue to drain clinicians' time, affecting the services available to clients because of the administrative workload placed on the clinical staff.

[JTC staff note: This request as originally included in the October 1 non-prioritized submission, and discussed in this question, was for the entire cost of the project ($5,946,390) in year one. The amount included by the Governor's Office of State Planning and Budgeting as part of the prioritized recommendations was reduced to only include the first year of funding for the project ($2,093,951), as is discussed in this JTC staff question to the department.]

Q. Please describe the department's change management plan associated with this project.

A. The Information Management Division conducts change control meetings every Tuesday for any changes to the Behavioral Electronic Health Record. The division also adheres to Cerner change management processes for changes to the system initiated by Cerner, who provides remote hosting.

For systems developed in-house, the division follows OIT's change management processes.

Q. What are key milestones for the project, along with estimated completion dates?

A. Key milestones for the project have not yet been set, as the process of setting these is intended to be a component of the initial phase of the project. Planning for which initiatives to prioritize should be completed by June 30, 2023. Identified priorities will kick off in the first quarter of FY 2023-24, at which time detailed project plans will be developed for these priorities, including key milestones for each project. The number of concurrent projects will be determined by resource constraints and contracting.

Q. Please provide additional information about the servers being requested, including where they will be located if they are physical servers and who will be responsible for the maintenance.

A. The current servers for our in-house systems are overseen by the OIT Server team and housed in the appropriate data center. eFort is the data center where OIT is currently housing these servers. As we expand upon in-house developed systems we will need to purchase additional servers to accommodate the systems. We expect that some of these servers will likewise be overseen by OIT. However, for new servers necessary to support vendor products, the contracting process will determine if the servers will be remote hosted or on site based on vendor practice.

Attachment A – CDHS Project Cost Information

	Project/System	FY 2023-24	FY 2024-25	FY 2025-26	Assumptions
1	RLDatrix configuration & integration to data warehouse	$25,000	$15,000	$15,000	Integration to data warehouse and then enhancements and maintenance costs.
2	REDCap configuration & integration to data warehouse	$20,000	$10,000	$10,000	Used MARS API (Application Programing Interface FY 21-22 project) for estimation of costs as the MARS API uses MuleSoft integration platform, which is OIT's tool of choice for implementing APIs.
3	REDCap reporting add-ons contractor	$10,000	$10,000	$10,000	Contractor to assist in adding RedCap extensions for reporting.
4	MuleSoft API development	$17,576	$17,576	$17,576	Current pricing is $8,788 (expectation is for potential of two more APIs).
5	Power BI or Tableau dashboards and data warehouse integration	$85,000	$60,000	$60,000	Depending on level of work, Power BI Enterprise is $4,995 per month; project will need to include data source connection.
6	Servers	$36,000	$60,000	$72,000	$500 per month for 12 servers (includes development, testing, and production servers). 6 servers for FY 23-24, 10 servers for FY 24-25, and 12 servers for FY 25-26.
7	Silver data encryption	$15,000	$45,000	$75,000	Data encryption at silver level, which is $250 per database per month (estimating there will eventually be 25 databases developed

					over the 3 years (5 in FY 23-24, 10 in FY 24-25, and 10 in FY 25-26). The price will increase or decrease if level is changed to gold or bronze.
8	External consultants with agile expertise	$419,994	$209,997	$0	Agile expertise for Forensic Services Division module development, including product owner and scrum master consultants full time for year one and 50 percent for year two.
9	Document management tool	$100,000	$42,000	$42,000	FY 23-24 implementation costs in year one. Annual license costs of $35 per user per year in years two and three, which would move to operational after the project.
10	QA tool	$0	$250,000	$10,000	Open source contractor. One year to set up, train, and hand off in year two; maintenance in year three.
11	Forensic Services Division notifications	$0	$150,000	$0	Infrastructure from OIT exists, this would be development this into the module.
12	Forensic Services Division project management from OIT	$206,000	$206,000	$206,000	OIT project management
13	Forensic Services Division business analyst support	$264,000	$264,000	$264,000	OIT full-time business analyst
14	Mental Health Institute project management from OIT	$206,000	$206,000	$206,000	OIT project management
15	Mental Health Institute business analyst support	$264,000	$264,000	$264,000	OIT full-time business analyst

16	Forensic Services Division OIT development hours	$149,500	$149,500	$149,500	OIT development at $115 per hour for an average of 260 development hours per module (expecting 15 modules)
17	Mental Health Institutes OIT development hours	$79,734	$79,734	$79,734	OIT development at $115 per hour for an average of 260 development hours per module (expecting 8 modules)
18	Forensic Services Division OIT solution engineering	$19,334	$19,334	$19,334	OIT solution engineering for four projects at $116 per hour estimate of 500 hours over the four projects
19	Mental Health Institutes OIT solution engineering	$9,667	$9,667	$9,667	OIT solution engineering for two projects at $116 per hour estimate of 250 hours over the two projects
20	Tableau Creator and Viewer license licenses	$37,410	$37,410	$37,410	Increase from 5 to 10 licenses. 5 licenses currently cost $18,705. And 200 viewer licenses.
21	Qualtrics/Survey Monkey	$5,000	$5,000	$5,000	Survey tools
22	BEHR data analytics	$75,000	$50,000	$50,000	Cerner Data Analytics module pricing
23	IM staff training	$45,000	$45,000	$45,000	Tableau training in the past was $25,000; will also need DAX training, .Net training, CJIS training, scrum training, agile training, FHIR training, and Power BI training
24	IM staff visual studio licensing	$4,736	$0	$0	Current pricing is $2,368 for four licenses; would like to move to eight for three years.

Fiscal Year 2023-24 Information Technology Request

Public Health and Environment
Vital Event System of Colorado

SHORT PROJECT DESCRIPTION

The Colorado Department of Public Health and Environment (CDPHE) is requesting state funding for phase two of a three-phase project to develop and enhance the Vital Event System of Colorado (VESCO), which is used by the State Vital Records program to collect various types of vital records information.

PRIORITY NUMBERS

2018019

Prioritized By	Priority	
OSPB	5 of 21	Recommended for funding.

PRIOR APPROPRIATION AND REQUEST INFORMATION

Fund Source	Prior Approp.	FY 2023-24	FY 2024-25	Future Requests	Total Cost
CCF	$745,000	$1,410,064	$515,170	$0	$2,670,234
CF	$1,695,000	$0	$0	$0	$1,695,000
Total	$2,440,000	$1,410,064	$515,170	$0	$4,365,234

PROJECT STATUS

The department was appropriated $2.4 million in FY 2018-19 for phase one of the VESCO to implement a new electronic birth registration and certificate issuance system. This request is for phase two to implement additional modules in the VESCO system.

PROJECT DESCRIPTION

CDPHE is requesting state funding for phase two of a three-phase project to develop and enhance the VESCO, which is used to collect various types of vital records information. These systems are used by the State Vital Records program staff, county vital records staff, funeral homes, county coroners, hospital registrars and physicians, induced termination of pregnancy providers, county clerk and recorders, and Colorado judicial courts to collect and record key life events, and issue birth and death certificates.

With the funding received in FY 2018-19, the department and OIT developed a custom-built application utilizing OIT resources for a modern electronic birth registration and certificate issuance system, which encompass the first two modules of the VESCO.

With the requested funding for FY 2023-24, the department plans to implement an electronic death registration (EDR) module within the VESCO. According to the department, over 99 percent of the approximately 50,000 annual deaths in Colorado are registered either partially or fully electronically through the current EDR system by coroners, funeral homes, and physicians.

With the funding the department anticipates requesting for FY 2024-25 for the final phase of the project, the department plans to implement modules involving the reporting of fetal deaths and induced terminations of pregnancy, which are currently done through a paper-based system and entered into Microsoft Access databases, and marriages and dissolutions.

PROJECT JUSTIFICATION

The department's goal with this project is to reduce the number of systems that county vital records registrars and others have to log into in order to record various key life events and eliminate the duplication of data entry where possible. Having all of these vital record modules, which are now recorded in different systems or through paper-based reports, included in one system will save significant staff time and effort and allow for tight integration between the various modules. There will also be a reduction in system maintenance costs since third-party and legacy systems will be able to be decommissioned.

Additionally, the current EDR system and Colorado Vital Records Information System, which the department is in the process of replacing with the VESCO project, are housed on a single OIT 2008 server located at the eFORT data center. Moving all related modules to VESCO, which is an Amazon Web Services web-based system, will allow for the decommissioning of these legacy systems and associated server.

COST-BENEFIT ANALYSIS

The current EDR system is a vendor-managed system that costs approximately $200,000 annually to maintain. This system and associated maintenance costs will be decommissioned upon the completion of this project. Additionally, the department expects a significant savings in staff time due to the current need to sign onto different systems and fill out paper forms.

PROJECT COST INFORMATION

The department provided the following cost estimates for the FY 2023-24 funding request for the EDR module:

- Project management & user interface design (Project manager II): $420,876
- Leadership (Program management III): $96,604.63
- Quality assurance testing (Data management IV): $112,124.28
- Data conversion (Data management IV): $56,062.14
- Data coordination (Data management III): $135,381.42
- Application/integration development: $485,019.36
- Amazon Web Services development: $6,000
- Branch operating (computers, supplies, licenses, training): $30,850
- Division administrative support: $67,145.89

For FY 2024-25, the department is anticipating the following costs for the additional modules:

- Fetal death module: $254,165
- Induced termination of pregnancy module: $148,441
- Marriage & dissolution module: $112,564

CASH FUNDS

The department used $1.7 million in cash funds and $745,000 in state funds for phase one of the project in FY 2018-19. The source of the cash funds for phase one was from the fees for the issuance of birth certificates. The department is requesting that the remaining two phases of this project be fully funded with state funds.

PROJECT RESEARCH

In 2015, the department conducted a large-scale process improvement analysis in vital records and an RFI was conducted on third party vital records systems in 2016.

ADDITIONAL PROJECT INFORMATION

The department plans to develop materials and resources for the numerous stakeholders who will require access to the system, including in-person instructor-led classes and an in-system training environment. The project will also include user acceptance training, unit testing, system integration testing, performance testing, and data migration testing.

PROJECT SCHEDULE

	Start Date	Completion Date
Planning	July 2023	December 2023
Implementation	October 2023	June 2026
Testing	October 2023	June 2027
Closing	January 2025	June 2026

QUESTIONS

All questions have been incorporated into the analysis.

Fiscal Year 2023-24 Information Technology Request

Office of Information Technology
Modernizing Aging IT Systems

SHORT PROJECT DESCRIPTION

The Governor's Office of Information Technology (OIT) is requesting state funding to invest in additional projects to remediate the state's technical debt.

PRIORITY NUMBERS

2023034

Prioritized By	Priority	
OSPB	6 of 21	Recommended for funding.

PRIOR APPROPRIATION AND REQUEST INFORMATION

Fund Source	Prior Approp.	FY 2023-24	FY 2024-25	Future Requests	Total Cost
CCF	$53,284,560	$22,655,995	$0	$0	$75,940,555
Total	$53,284,560	$22,655,995	$0	$0	$75,940,555

PROJECT STATUS

OIT received $53 million in state funding to begin remediating the state's technical debt in FY 2022-23. This request is for phase two to fund additional projects to continue this work.

PROJECT DESCRIPTION

OIT is requesting state funding to invest in additional projects to remediate the state's technical debt. With this round of funding, OIT plans to make the following investments:

1. Enterprise Identity
This would create a statewide single identity and single sign-on, which would be used for various state systems and applications.

2. IT ServiceHub Phase 3
According to OIT, ServiceHub is the office's main automation tool that enables the support of modern IT operations and moving away from manual processes.

3. Infrastructure and Network Buildout
This would develop a reliable, monitored, secure, and state-owned storage platform for application and database needs, as well as backups, disaster recovery, and file shares. OIT received funding for this initiative in FY 2022-23, but OIT needs additional funding to complete this initiative due to cost increases.

4. CORE Network Refresh
The existing network communication gear requires a refresh and functional expansion to continue supporting ongoing statewide business needs. OIT received funding for this initiative in FY 2022-23, but OIT needs additional funding to complete this initiative due to cost increases.

PROJECT JUSTIFICATION

According to OIT, unfunded technical debt across executive branch agencies totals $465 million based on the FY 2020-21 Five Year IT Roadmaps. This technical debt creates increased risks to state security and operations.

COST-BENEFIT ANALYSIS

OIT estimates that approximately 45 percent of OIT staff time is spent maintaining legacy technology to keep it operating and secure. There are a large number of legacy databases that are no longer supported. Additionally, OIT is having increased difficulty in recruiting and retaining IT staff who are knowledgeable in these legacy systems.

PROJECT COST INFORMATION

OIT provided the following cost estimates for this project:

- Enterprise Identity (single sign-on, multi-factor authentication, proof of identity): $16,865,573
- IT ServiceHub Phase 3: $2,044,312
- Infrastructure and network buildout: $1,958,748
- CORE network refresh: $1,787,362

CASH FUNDS

N/A

PROJECT RESEARCH

OIT has been conducting various forms of market research into the state's technical debt landscape over the past several years, including through the Five Year IT Roadmap process with each agency.

ADDITIONAL PROJECT INFORMATION

N/A

PROJECT SCHEDULE

	Start Date	Completion Date
Planning	July 2023	December 2023
Implementation	September 2023	June 2026
Testing	September 2023	June 2026
Closing	December 2023	June 2026

QUESTIONS

Q. Please provide an update on the $53 million that was appropriated to OIT for FY 2022-23 for the first round of tech debt projects, including how much has been spent and encumbered to date. Please also describe how OIT has prioritized the projects that were included in the original FY 2022-23 $66 million request.

A. As of November 8, 2022:
- YTD Encumbrances: $6,975,421.88
- YTD Expenses: $3,409,135.55

Projects prioritized based on: OIT's strategic plan, projects yielding the greatest benefit to the state (these specific projects were selected due to highest operation and security risk to the state). Additional information is provided as Attachment A.

Q. Please describe the collaboration with and involvement of OIT's agency clients in developing this request.

A. As part of our IT Transformation Program, we're working with our agency partners to develop plans to assess current

technology and remediate technical debt. This digital guidebook will highlight the technical debt we've identified, the funding we are requesting to remove it, and the progress we are making. The guidebook will be updated regularly and will share with the JTC when the digital guidebook is available.

Q. Does OIT believe that it is realistic that all of these projects will be completed within the three-year timeframe? Relatedly, does OIT have the staff resources needed to complete these projects?

A. Based on the current spend/encumbrance rate of the FY 22-23 R01 Technical Debt projects, OIT would anticipate being able to encumber all operational and contractor budgets over the span of the three-year timeframe and personal service expenses would be incurred monthly over the term of the Capital projects. The expenses associated with the encumbrances for the operational and contractor budgets would occur as the work is completed. OIT would require additional professional services and contractor engagement in order to perform all the original proposed projects listed on OIT's July 15, 2022 IT capital budget submission request of $164.5M.

Q. Please describe OIT's efforts to prevent new technical debt from developing with new projects and work across agencies.

A. As a part of the FY 22-23 R01 Technical Debt program, we are building out solutioning processes and procedures that will operationalize our ability to create enterprise solutions that adhere to an underlying technology strategy. For example, providing IT Governance, Architecture review and IT standards help address existing and avoid future technical debt from developing. Also, SB22-191 Procurement of IT Resources strengthens OIT's role in the procurement of information technology resources for state agencies, and clarifies that state agencies may only initiate solicitations and contracts for information technology resources if the agency has received prior approval of the OIT procurement official. OIT will continue to identify sustainable funding sources and opportunities (10% maintenance and support fees for IT capital purchases) to help eliminate the state's existing $465.1 million technical debt problem and to prevent further technical debt from accumulating.

Part of our strategy is to leverage SaaS services and focus on solutions that consider the total cost of ownership (TCO). In other words, designing solutions in a way that they are maintainable and adaptable is a core component of our solutioning strategy. Furthermore, establishing compliance roles for OIT to play irregardless if the solution is fully vendor managed, or vendor developed, is an operational objective that OIT is pursuing. Our ability to consistently oversee and audit systems routinely will provide the opportunity for us to prevent accumulation of technical debt. Finally, OIT has established the development of Technology Planning Workbooks that articulates each agency's technology strategy. In these workbooks, we will be identifying necessary activities to prevent the accumulation of technical debt; such as upgrading operating systems or database servers in a timely fashion; prior to them going out of support.

As of 11/8/22			
YTD Encumbrances	$6,975,421.88		
YTD Expenses	$3,409,135.55		
Projects prioritized based on: OIT's strategic plan, projects yielding the greatest benefit to the state (these specific projects were selected due to highest operation and security risk to the state)			
1.) Decommission Mainframe	**$**	**Milestones - Potential Impacts to Achieve**	**Estimated Completion Dates**
Application 1: SIDMOD	$2,224,932.00	Eliminate on-going O&M and licensing costs of mainframe once all applications (CPPS, EBT, SIDMOD, ACSES, and MFT) are modernized/rehosted.	6/30/2024
Application 2: Electronic Benefit Transfer	$7,076,690.00		6/30/2024
Application 3: ACSES Modernization	$1,944,235.00		6/30/2024
Application 4: CPPS port application to server environment	$16,033,850.00		6/30/2024
Application 5: Replacement of MFT (Cyberfusion)	$839,371.00		6/30/2024
2.) Tech Debt Projects - Salesforce Security			
Salesforce Security Vulnerabilities Refactoring	$1,638,166.00	Work to secure the 82+ applications with various levels of security vulnerabilities, ranging from low to high, which expose the state's applications and data and to access by unauthorized users. We are carrying technical debt which impedes our abilities to deliver scalable solutions built on "Click over Code " and helps to protect future proof of our investments by reducing or eliminating custom code."	6/30/2023
3.) Tech Debt Projects - ITSM and ITAM			
ITSM and ITAM	$1,715,900.44	Discovery data has been collected into ServiceHub it now needs to be validated and audited, as well as additional details added to make it useful for compliance reporting and tracking. This request will conduct the Exec branch asset data collection effort.	6/30/2024
4.) Exit Efort and Cloud Migration			
Cloud Migration	$2,586,249.00	This will help all State Agencies migrate to the Cloud and off of aging infrastructure. With the accelerated initiaitve to modernize state workloads and leverage cloud/managed services, this would ensure tech debt reduction, modernization and long term workforce-needs re-evaluation.	6/30/2024
Upgrading SQL servers from 2008	$2,068,517.00	Upgrading SQL Server effort will take resources, planning and time as well as customer outage. Decommissioning of old Databases will have less impact than upgrading, no customer outage and big benefit for tech debt (server & application retirement).	6/30/2024
Windows 2008 retirement	$3,556,315.00	Vendor support for Server 2008 ended on January 14, 2020 and is therefore not providing security patches and so applications left on 2008 servers are vulnerable to security threats.	6/30/2024
Infrastructure and Network Buildout	$3,927,709.00	70% of the states compute hosting infrastructure that houses 2,000+ systems and associated applications will go end-of-support in December 2021. Refreshing this infrastructure to sustain these workloads is critical to agency business and operations.	6/30/2024
Storage Renewal	$4,637,411.00	The OIT Hosting infrastructure supports agencies' critical, essential and highly important application workloads statewide. This storage platform houses all production, test, and development data associated to these workloads. Refresh and renewal of this platform is critical to ensure ongoing operations and sustainability.	6/30/2024
CORE network refresh	$3,691,380.00	Without this refresh and functional expansion, meeting the needs of statewide agency business requirements will not be sustainable with the increasing move to remote work, cloud service consumption, and the modernization of agency applications and services.	6/30/2024
Administrative Support			
Administrative and Support	$1,343,835.56		
Totals:	**$53,284,561.00**		

Category	PROJECT	Requested one-time funds	Priority (High, Med, Low)
Security	Enterprise Identity (SSO, MFA, and Proof of Identity) - updated with ID concept paper	$16,865,573	High
R01 Budget Shortage and 40% Cost Increases	Infrastrtucture and Network Buildout	$1,958,748	High
R01 Budget Shortage and 40% Cost Increases	Core Network Refresh	$1,787,362	High
Other tech debt	IT ServiceHub Phase 3	$2,044,311.84	High
Total FY24 Technical Debt Funds Approved as of 11.2022		**$22,655,995**	

Category	PROJECT	Requested one-time funds	Priority (High, Med, Low)
Security	Enterprise Identity (SSO, MFA, and Proof of Identity) - updated with ID concept paper	$17,681,751	High
R01 Budget Shortage and 40% Cost Increases	Infrastrtucture and Network Buildout	$2,053,538	High
R01 Budget Shortage and 40% Cost Increases	Core Network Refresh	$1,873,858	High
Other tech debt	IT ServiceHub Phase 3	$2,143,242.53	High
Security	Security Vulnerabilities Refactoring (Updated)	$11,107,185	High
Security	Modernize the state's domain: Domain change from state.co.us to .gov	$2,143,243	High
Security	API and web services security monitoring and protection	$428,649	High
Consolidation, Rationalization & Replatforming	Agency Applications Refactoring	$85,654,688	High
Consolidation, Rationalization & Replatforming	Enterprise Load & Performance Testing Investment	$642,973	High
Consolidation, Rationalization & Replatforming	Salesforce Consolidation	$4,974,244	High
Other tech debt	Asset Management and Compliance - Walk the walls	$2,404,718	High
R01 Unfunded Project Other Tech Debt	MS Access replatforming	$639,172	High
Security	Integrations for Identity Manager and agency line of business applications	$11,758,257	Med
Security	Splunk Log Aggregation	$2,143,243	Med
Security	Security Risk Management, Audit Response and Remediation and Vendor Risk Management	$360,065	Med
Consolidation, Rationalization & Replatforming	myColorado Tech Debt	$428,649	Med
R01 Unfunded Project Other Tech Debt	SharePoint Migration to platforms OnBase	$2,332,369	Med
R01 Unfunded Project Other Tech Debt	Call Center Upgrades	$639,172	Med
Consolidation, Rationalization & Replatforming	Consolidate The Two Checkmax Environment (OIT & CBMS) Into One and Upgrade the Architecture	$214,324	Low
	Sub-total	**$149,623,338**	
	Add: 10% future reaplcement costs on IT capital	**$14,962,334**	
	Total FY24 Technical Debt Funding Request	**$164,585,672**	

Fiscal Year 2023-24 Information Technology Request

Public Health and Environment

Stationary Sources Solution Modernization

SHORT PROJECT DESCRIPTION

The Colorado Department of Public Health and Environment (CDPHE) is requesting cash funds spending authority for phase two of a three phase project to modernize the Stationary Sources Solution data systems.

PRIORITY NUMBERS

2023038

Prioritized By	Priority	
OSPB	7 of 21	Recommended for funding.

PRIOR APPROPRIATION AND REQUEST INFORMATION

Fund Source	Prior Approp.	FY 2023-24	FY 2024-25	Future Requests	Total Cost
CCF	$4,099,148	$0	$0	$0	$4,099,148
CF	$0	$4,530,695	$4,373,158	$0	$8,903,853
Total	$4,099,148	$4,530,695	$4,373,158	$0	$13,003,001

PROJECT STATUS

This request is for phase two of a continuation project. Funding for phase one was appropriated for FY 2022-23.

PROJECT DESCRIPTION

The Stationary Sources Program (SSP) in the Air Pollution Control Division (APCD) within CDPHE is responsible for the oversight of stationary sources of pollution in the state, including oil and gas facilities; Title V major sources, as defined by the Environmental Protection Agency (EPA); landfills; and others. Currently the division's SSP permitting, inspection, and compliance functions are primarily paper-based, requiring SSP staff to manually input large amounts of data into the current system, then manually scanned into the records retention system. With the new project, the SSP is aiming to improve the delivery of environmental services to customers through the implementation of a new, customer-focused, integrated and interactive electronic system used for permitting, inspection, and compliance systems. The new system will be a web-based system that will perform a number of functions, such as: application and payment for required permit; uploading documents required by regulations or statute; and the ability for each user in the regulated community to update and modify information on file with the SSP.

The department also plans to contract with a local university or regional organization to build and maintain a new, cloud-based data warehouse for storing, collecting, and sharing data with other agencies, the regulated community, and the public. Due to the division's lack of technical expertise in developing a complex technology tool, they believe it will be more efficient to contract with local expertise to develop and maintain such a data warehouse.

PROJECT JUSTIFICATION

The division's current software and data systems were implemented in 1995 and are outdated, lack integration with one another, and require upgrading to support current data management and overall business needs. Historically, paper forms have been used to submit data to the division, which has proven to be an inefficient and cumbersome method as additional regulations are passed. With the current processes in place, it can take several days to move a single "business transaction" through the SSP due to the inefficient system. Consequently, the division has recognized a need for a "big data" solution, beginning with the electronic warehousing of data for proper collection and sharing of this data with the public, environmental researchers, and non-governmental organizations. By shifting to an electronic system, the collection, analysis, and interpretation of environmental data will become more efficient and effective to process. According to the division, the new systems will help customers realize the following benefits:

- The current SSP data system serves approximately 2,500 regulated companies, and approximately 14,000 active facilities throughout the state. These entities will be able to save time and resources by interacting with the SSP via a secure web portal.

- The new system will result in greater programmatic efficiency and effectiveness, saving SSP staff time and resources, resulting in greater staff capacity to devote to other priorities, helping to achieve the mission of the organization

- The new, improved SSP data system will also benefit a variety of other state and local agencies including, but not limited to Colorado Oil and Gas Conservation Commission, Colorado Energy Office, Colorado Department of Transportation, Climate Cabinet, local air quality inspection programs, environmental interest groups, universities, and local elected officials.

An additional benefit of the new system will be public access to select records via the secure web portal, cutting down on the number of public requests for records, and the SSP resources required to process those requests. Data in the improved SSP data system could more easily be queried and captured for decision making, as well as provide improved public access to information.

COST-BENEFIT ANALYSIS

The department did not provide a quantified cost-benefit analysis for this project, but anticipates that the new system will increase staff efficiency, increase operating and workflow efficiency, and enable staff to dedicate more time to other high priority work initiatives. The department receives about 20,000 documents per year. Using the manual, paper-based system currently in place, the department estimates that for each document received, they are spending 60 minutes processing each document. That equates to 20,000 hours of labor spent processing documents under the current system. The department believes that with the new system the time spent processing each document could perhaps be reduced to 10 to 15 minutes per document, which would consequently result in significant reductions in hours of labor spent processing.

PROJECT COST INFORMATION

The department provided the following cost estimates for phase two of the project:

Professional Services:
- Consultants/ Contractors: $3,444,000
- Independent Verification and Validation (IV&V): $172,200
- Training: $25,000
- Inflation for professional services: $145,648
- Other services/costs: $120,000

Software Acquisition:
- Software COTS: $150,000
- Software built: $150,000
- 2.7 percent inflation on software: $8,100

Equipment:
- Cloud hosting: $100,000

Project contingency:
-5 percent project contingency: $215,747

Ongoing operating costs. The department estimates that ongoing operating costs for the system will be approximately $875,000 for personal services and on-going licensing and maintenance costs. However, this will be better understood once the software is chosen for the modernization project. These costs are expected to increase over time as adjustments for inflation and licensing cost increases are incorporated. The department is planning to cover these costs with revenues from the Stationary Source Control Fund.

CASH FUNDS

The department is proposing to use cash funds from the Stationary Sources Control Fund for the final two phases of this project. Revenues to this fund come from permit fees, emission notice fees, and per-ton emission fees. The oil and gas industry is the

largest fee payer. Other fee payers include electric generation, manufacturing, retail, landfill, agricultural, construction, mining, and other entities.

PROJECT RESEARCH

In order to determine the need for this project, the department has taken several preliminary steps. The project proposal was reviewed and approved by the Governor's Office of Information Technology (OIT) in July 2021. Additionally, a review was conducted of current system capabilities and limited scoping of potential new systems. Furthermore, all SSP business processes have been mapped out in a step-by-step method.

The SSP will evaluate a number of different alternatives to the proposed approach. The proposed approach, as well as alternatives, estimated costs, and pros and cons are as follows.

- The proposed solution is to implement a single commercial off the shelf product (COTS) for all of the SSP's processes. To fund implementation of several processes for each of the next three years, the estimated annual cost will be $4.1 million to $4.4 million.

- An alternative solution that was evaluated was to develop a custom solution using vendor resources. The cost of this solution would be determined through a Request For Proposal (RFP) process with a potential focus on a cloud-based solution.

- Also evaluated was the approach of continuing with current paper-based processes. In this scenario, FTE and fee increases are likely due to increasing demand in the program. Additionally, the entities regulated under the SSP may soon be required to electronically report to the EPA. If the SSP does not have a system in place to handle electronic reporting from regulated entities, it is likely that the regulated entity would have to report information to both the EPA and SSP separately, hindering efficiency and effectiveness.

ADDITIONAL PROJECT INFORMATION

The SSP is conducting this project in a phased approach and is planning to utilize agile development processes to implement the system. Phase one includes the implementation of base system and the implementation of the Air Pollutant Emission Notices for sources required to report emissions. Phase two will include the development of workflow for permitting for inspection and compliance purposes. Phase three will be the implementation of 30 simple and 10 moderate processes by December 31, 2024, and the implementation of another 30 simple and 10 moderate processes by December 31, 2025. CDPHE will work with OIT and the selected contractor(s) to develop a training plan to validate that the system is functioning as expected and meets the department's needs.

The new system will be cloud-based, which is consistent with OIT's cloud-first strategy, and will require limited technical support from OIT. OIT will be involved in the following components of the project:

- Assisting with the development of system requirements and advising on best possible solution(s) to meet those requirements.
- Assisting with the contracting process and evaluation of potential vendors.
- Assisting with the development and testing of the solution(s).
- Reviewing and advising on the security of the solution(s) and reviewing the system security plan.
- Advising on and implementing a plan for ongoing support for the solution(s).

PROJECT SCHEDULE

	Start Date	Completion Date
Planning	July 2022	December 2023
Implementation	March 2023	December 2025
Testing	March 2023	June 2026
Closing	December 2025	June 2026

QUESTIONS

Q. Last year's budget request, CDPHE estimated the FY 2023-24 costs would be $4.3 million, but the current request is for $4,530,695. Please explain why the costs are higher than anticipated.

A. The increase in the request is to reflect the increase in inflation from 2.7% to 4.0% and an additional $150,000 increase for an additional software build to capture voluntary actions to decrease air emissions.

Q. Please provide an update on the Stationary Sources Control Fund that the department is planning to use for the funding of year three. Are revenues in the cash fund projected to be sufficient to cover year 3 costs?

A. Yes. While the FY 2023-24 current projected year-end balance for the Stationary Sources Cash Fund is $675,000, during the 2022 legislative session, the General Assembly appropriated $25.5 million general fund to support Air Quality Transformation; these monies were remitted to the Stationary Sources Control Fund and enabled a quick ramp up of services in FY 2022-23 and FY 2023-24. The department recognizes that fees need to cover all FY 2024-25 costs including implementation of the Air Quality Transformation Decision Item approved for FY 2022-23, legislation that converts from general fund to ash funds and year 3 of this project even with consideration of current departmental budget requests.

Q. If only partial funding is available, how would the department prioritize the components outlined in the table on page 6 of the budget request document?

A. The department has learned from prior partial funded projects and would first hold the project until sufficient funds could be aggregated to ensure a secure and functional system. All the workflows demonstrate a sequence and the sequence will govern prioritization. For example, reporting cannot happen without inputs. Inputs cannot happen without first having a secure container that satisfies federal and state security requirements.

Q. Please provide an update on how much has been spent and encumbered from phase 1 funding.

A. As of October 2022, the amount spent is under $5,000 and the amount encumbered is $1,384,535. Personnel costs are not counted in this number under the capital portion of the appropriations.

Fiscal Year 2023-24 Information Technology Request

Labor and Employment
Conveyance Database

SHORT PROJECT DESCRIPTION

The Colorado Department of Labor and Employment (CDLE) is requesting one-time cash fund spending authority for a project to enhance the conveyance database system within the Division of Oil & Public Safety.

PRIORITY NUMBERS

2024019

Prioritized By	Priority	
OSPB	8 of 21	Recommended for funding.

PRIOR APPROPRIATION AND REQUEST INFORMATION

Fund Source	Prior Approp.	FY 2023-24	FY 2024-25	Future Requests	Total Cost
CF	$0	$693,000	$0	$0	$693,000
Total	$0	$693,000	$0	$0	$693,000

PROJECT STATUS

This is a new, never-before-requested project.

PROJECT DESCRIPTION

CDLE is requesting one-time cash fund spending authority for a project to enhance the conveyance database system within the Division of Oil & Public Safety. The division uses the system for a variety of activities related to its regulation of approximately 22,000 conveyances (e.g., elevators and escalators), including functionality related to conveyance registration, construction permits, inspection certificates, and professional licensing. The project would eliminate the plug-in application from the existing database application and rewrite the code to an updated format; enable online entry of inspection data from third party inspectors; create a more robust invoicing status; and allow for the simple recreation of automated enforcement documents when the customer address is unusable.

PROJECT JUSTIFICATION

The conveyance system currently utilized by the department includes the main system from one vendor and an add-on application from another vendor. One of these is limited on technical support, which leads to a lag in resolution to system errors and issues. The current system also experiences monthly disruptions in service to the customers. Having two vendors involved has also lead to higher costs and an increase in resources needed to staff the system. Consolidating to one application would remove the need for additional add-on application licensing and resources, resulting in an overall increase in efficiency and cost savings.

COST-BENEFIT ANALYSIS

The current system has a current add-on application licensing fee of approximately $36,000 annually. However, the department expects to decrease this license cost to between $2,000 and $3,000 annually. Functionalities added to the current system would be covered under the current license fee.

PROJECT COST INFORMATION

The department provided the following cost estimates for this project:

- Software: $600,000
- 5 percent contingency: $30,000
- 10 percent future IT Capital Replacement Costs: $63,000

Fiscal Year 2023-24 Information Technology Request

Labor and Employment
Conveyance Database

CASH FUNDS

The cash fund the department plans to use for this project is the Conveyance Safety Fund. Fees from registration of new conveyances, annual inspections, construction permits, and licenses for conveyance inspectors, mechanics and contractors are deposited into this cash fund.

PROJECT RESEARCH

A successful Request for Information was completed in January 2020, where several vendors responded with information and demonstrations.

ADDITIONAL PROJECT INFORMATION

Change management plan. The selected vendor will be responsible for providing initial user training and ongoing user and technical support.

Accessibility. This project will allow for the department to address and further enhance accessibility compliance requirements not present or capable of being implemented in the current legacy system.

PROJECT SCHEDULE

	Start Date	Completion Date
Planning	July 2023	December 2023
Implementation	August 2023	June 2024
Testing	August 2023	June 2024
Closing	June 2024	June 2024

QUESTIONS

Q. The department requests an appropriation to replace the “existing plug-in application from the existing database application and rewriting the code to an updated format”. The department also says that the “request is to purchase software that enhances the existing database”. Please provide more information about the type of solution, and the maintenance model. Is the existing plug-in custom code that is maintained by a vendor, and are the estimates based on a similar solution, along with the same maintenance cost model? Please explain, including clarifications and potential changes in regards to the new plug-in.

A. The request will allow OPS to remove reliance on the existing plug-in. Rewriting the code to an updated format means enhancing system interfaces, in this case, it involves moving from Salesforce Classic to Salesforce Lightning, which is the state’s current OIT-supported version. Removing the reliance on the current plug-in will allow further development of process improvements with enhanced Salesforce knowledge rather than that of a third party.

Q. Does the system store sensitive data, such as personally identifiable information, or is the department mandated to retain records for a specific period? If so, please summarize the department’s plan to ensure confidentiality, integrity, and availability. Please also summarize OIT’s planned involvement with this project, including procurement, security, and disaster recovery planning.

A. The system houses attachments dedicated to separate program in which Conveyances shares the Org with. However, the documents are not the responsibility of Conveyances themselves. Part of this project is to separate the programs, providing further isolation and safety of sensitive information. Project management, procurement, and disaster recovery planning will be owned by CDLE with guidance from OIT. Security will be approved by OIT.

Q. On page 2 of the budget request it was mentioned that the enhancements will reduce disruptions in service to the customers. How often are these disruptions happening, and what is the impact?

A. Disruptions are happening monthly and usually increase in frequency around the end of the calendar year. When these disruptions occur, OPS must research the cause of the disruption itself, work to remediate the problem, and then work with the Conveyance team to manually complete any of the work including batch runs, document creation, etc. that didn't automatically run.

Fiscal Year 2023-24 Information Technology Request

Labor and Employment

Vocational Rehabilitation Case Management Modernization

SHORT PROJECT DESCRIPTION

The Colorado Department of Labor and Employment (CDLE) is requesting funding for phase one of a two-phase project for the implementation of a commercial-off-the-shelf case management system for the Division of Vocational Rehabilitation (DVR).

PRIORITY NUMBERS

2024020

Prioritized By	Priority	
OSPB	9 of 21	Recommended for funding.

PRIOR APPROPRIATION AND REQUEST INFORMATION

Fund Source	Prior Approp.	FY 2023-24	FY 2024-25	Future Requests	Total Cost
FF	$0	$3,681,480	$971,524	$0	$4,653,004
RF	$0	$996,386	$262,941	$0	$1,259,327
Total	$0	$4,677,866	$1,234,465	$0	$5,912,331

PROJECT STATUS

This is a new, never-before-requested project.

PROJECT DESCRIPTION

CDLE is requesting funding for phase one of a two-phase project for the implementation of a commercial-off-the-shelf case management system for DVR. DVR provides assistance to individuals with disabilities in reaching employment goals and living independently.

The department anticipates that the new system will enable division staff to more efficiently manage all aspects of vocational rehabilitation service administration and tracking for clients while meeting all federal and state reporting requirements. For example, providing tools for vocational rehabilitation counselors to manage each customer's case, such as to-do reminders, case notes, vendor management, communication, and budgeting.

PROJECT JUSTIFICATION

The division's current case management system (AWARE) is over 10 years old and needs to be modernized to meet the current needs of division staff and clients. The current system does not allow for online collaboration or sharing capabilities, which would allow the department to provide better services to its clients. Additionally, the department hopes that a new system will increase access to virtual services and decrease the time for clients to be approved for assistance.

The department's contract with the vendor of the current case management system runs through June 30, 2024, and the Office of the State Controller has indicated that it will not approve another sole source contract with the current vendor since the current contract has been in place for over 10 years without a competitive solicitation. Therefore, the department is looking to have a new system in place before the contract for the current system expires.

COST-BENEFIT ANALYSIS

The department anticipates that the new system will save significant staff time required to complete critical functions and allow for improved business processes. These savings could amount to as much as $2.0 million annually in staff time, according to the department. Additionally, according to the department, the five-year cost estimate for renewal of the current aging system is approximately $3.3 million without any of the advantages that a new system would bring.

Fiscal Year 2023-24 Information Technology Request

Labor and Employment

Vocational Rehabilitation Case Management Modernization

PROJECT COST INFORMATION

The department provided the following cost estimates for the project:

- OIT interagency agreement project management: $1,192,870
- DVR project management: $676,608
- Software COTS purchase: $700,000
- Software build: $1,629,052
- Other services/costs (delivery testing and training): $1,086,035
- Contingency: $202,505
- Future IT capital replacement costs (10%): $425,261

The project management costs for OIT and DVR include the costs for 9.5 temporary FTE for the first year of the project, and 8.5 temporary FTE for the second year of the project.

Operating costs. The department anticipates that the ongoing operating costs of the new system will be approximately the same as the costs of the current system (approximately $600,000 annually) and will therefore be covered within existing resources.

CASH FUNDS

According to the department, the source of funds that the department is proposing to use for this project comes from revenues collected by DVR from the Colorado Department of Education and school districts, along with a federal match.

PROJECT RESEARCH

N/A

ADDITIONAL PROJECT INFORMATION

The department plans to require that the vendor provide ongoing user and technical support to DVR staff beginning at the time of go-live and continuing for the life of the contract. Additionally, the project will include functional testing, user acceptance testing, and final acceptance testing.

PROJECT SCHEDULE

	Start Date	Completion Date
Planning	July 2023	August 2023
Implementation	August 2023	November 2024
Testing	May 2024	November 2024
Closing	November 2024	January 2025

QUESTIONS

Q. What is the source of the reappropriated funds the department is proposing to use for this project?

A. DVR's federal grant requires a match of 21.3% non-federal dollars. These funds are reappropriated to DVR through contracts with other state and local government agencies, primarily the School to Work Alliance Program. These reappropriated funds are DVR's primary source of required non-federal match dollars.

Q. What would the impact be if the department receives year 1 funding, but does not receive year 2 funding? Is the funding for year 1 able to provide value if year 2 funding is not appropriated?

A. The FY24 budget includes all estimated contracted costs to purchase and adapt a new system, as well as estimated costs for 9.5 FTE for the first year. Given a contract has not yet been negotiated, DVR requests authority to carry forward unspent funds, allowing for a multiyear contract to complete the project if needed. The funds requested for FY25 include 8.5 FTE as all but 1.0 FTE are expected to be needed for 18-24 months. If FY25 is not funded, DVR may not have sufficient staff resources to successfully complete the project.

Q. The budget request says that the "vendor will work in conjunction with the department's Business Technology Group." Please provide more information about the Business Technology Group. Does the group consist of OIT personnel? If not, please describe the group's collaboration with OIT.

A. CDLE's Business Technology team oversees the strategic direction of CDLE systems by working with each unit to identify and implement technology that promotes the strategic alignment of CDLE's technology goals with our mission and vision. Business Technology oversees the portfolio of IT assets and projects and develops and implements governance around IT assets and projects to ensure leveragability, salability, sustainability, accessibility, and security for all of CDLE's IT assets. The Business Technology team works closely with OIT to assist with all project intakes and determination of governance levels, promote and provide insight into Agile methodologies, oversee agency-wide technology efforts and assessments, provide leadership into the Statewide IT Transformation efforts, provide guidance to data management, promote best practices with platform technologies, and oversee all major projects.

Fiscal Year 2023-24 Information Technology Request

Corrections

DOC Human Resources Management System

SHORT PROJECT DESCRIPTION

The Colorado Department of Corrections (DOC) is requesting one-time state funding to replace the department's Human Resources Management System (HRMES) with a customizable off-the-shelf software solution from Kronos that will be hosted in the cloud.

PRIORITY NUMBERS

2024021

Prioritized By	Priority	
OSPB	Not Prioritized	Not recommended for funding.

PRIOR APPROPRIATION AND REQUEST INFORMATION

Fund Source	Prior Approp.	FY 2023-24	FY 2024-25	Future Requests	Total Cost
CCF	$0	$2,605,507	$0	$0	$2,605,507
Total	$0	$2,605,507	$0	$0	$2,605,507

PROJECT STATUS

This is a new, never-before-requested project.

The DOC was appropriated $1.3 million for FY 2022-23 for the implementation of the Kronos timekeeping and scheduling system.

PROJECT DESCRIPTION

The DOC is requesting one-time state funding to replace the department's HRMES with a customizable off-the-shelf software solution from Kronos that will be hosted in the cloud. According to the department, the new HR system is expected to include the following services: Pro People Center, talent acquisition, talent management, compensation, learning, employee voice, document management, and people assist.

PROJECT JUSTIFICATION

According to the department, the current HRMES was built in-house and is on an outdated platform that puts the department at risk of data loss, privacy violations, and significant expense to resolve system errors using third-party contractors. The current HRMES application consists of 17 different active modules and is mainly built in a PHP MCV (Model, View, Controller) framework that makes heavy use of prototype Javascript. The backend utilizes an Informix SQL database which has 119 HRMES-specific tables.

The department expects the new system to increase staff productivity by streamlining the timekeeping and scheduling processes, recruiting, onboarding, performance management, benefits management, personnel and position management, and other features. Additionally, the same HR data must be entered by DOC employees into multiple systems, including the HRMES, the Colorado Payroll Personnel System (CPPS), and the Department of Corrections Information System (DCIS), which causes inefficiencies, room for human error, and data that is not current.

Finally, the department states that it is becoming more difficult to find technical staff to work on programing in the HRMES due to the legacy platform.

COST-BENEFIT ANALYSIS

The department was unable to provide a quantified cost-benefit analysis. However, the department expects that the new system will allow for the automation of various HR processes, which will result in improved efficiency, reduced direct labor interaction, and improved data accuracy and availability.

PROJECT COST INFORMATION

The department provided the following cost estimates for the project:
- Annual SaaS fees for 6,250 licenses: $1.05 million
- Professional services: $0.8 million
- Additional 5.5 temporary FTE: $0.7 million

The department will be contracting with Kronos for this project using the Kronos Master Contract that is held by the Governor's Office of Information Technology (OIT). The total project cost includes educational training, professional services, project management, implementation operation costs, maintenance and related expenses.

Ongoing operating costs. The department estimates that the ongoing operating costs of the new system will be $81,000 beginning in FY 2024-25 and ongoing.

CASH FUNDS

N/A

PROJECT RESEARCH

The DOC has been working on developing the system requirements and configurations since the original HRWorks project, which was managed by the Department of Personnel and Administration and OIT, was first funded in FY 2014-15. After the HRWorks project was ended in 2020, without the development of a new, statewide HR and payroll system, the DOC has been evaluating alternatives to replace its current HRMES. The department has also collected information from other state agencies currently using Kronos solutions.

According to the department, choosing a different vendor than Kronos for the new HR system would be more costly and take longer to implement.

ADDITIONAL PROJECT INFORMATION

Change management. The department plans to use change management methods recommended by Kronos on this project. This includes the development of a project communication plan to keep users and management informed of project progress and issue resolution; a full testing strategy involving user acceptance testing, data migration testing, and system integration testing; and various training opportunities, both instructor-led and virtual.

PROJECT SCHEDULE

	Start Date	Completion Date
Planning	July 2023	December 2023
Implementation	September 2023	June 2024
Testing	September 2023	June 2024
Closing	June 2024	June 2024

QUESTIONS

Q. Has the Department of Personnel and Administration been involved in conversations with DOC around the development of this new system?

A. Yes, the DOC Business Innovation Group, in conjunction with DOC HR, has centered numerous conversations on the HRMES replacement and upgrade with DPA. DPA has expressed excitement with the DOC upgrading and modernizing its systems and technology infrastructure. This solution leverages the OIT best practices that are currently in place and being implemented by multiple Colorado agencies.

Q.a. How is the department working to ensure that this project won't lead to increased silos of HR systems across state agencies?

A.a. Project risk is reduced by this project being sponsored by the DOC Executive Team and managed and directed by the DOC Business Innovation Group that has staff to act on the DOC behalf to reduce project risk. The impact of this solution on other agencies is only positive as it will align with the agencies that are already using this solution or are in the process of implementing this solution.

Q.b. How, if at all, does the department anticipate that the new system will interface with the new payroll system that DPA is currently working on?

A.b. The Kronos solution will fully integrate with the new DPA payroll system with seamless data migration and reporting. The current systems do not interface without specific file transfers and data shifts. Having a seamless interface will greatly reduce risks associated with multiple platforms housing the same information. Kronos HRMS would integrate into the current CPPS for payroll and streamline the DOC payroll process with improved efficiency. The impact of this solution on other agencies is only positive as it will align with the agencies that are already using this solution or are in the process of implementing this solution.

Q. How will the new system interface with the department's new timekeeping system that was funded last year?

A. The new solution is designed to interface with the new timekeeping system, making processes that are currently handled in HRMES more efficient than our current practices. Moving to UKG is a direction we must go as HRMES will no longer be supported in the next few years and we need to move all of the data to a cloud source instead of a mainframe.

Q. Please provide examples or descriptions of the paper and manual processes that are involved in the current system.

A. Paper processes describe the lack of automation and concern of increased risk in multiple manual entries. A main concern is the HR data systems do not interface. Data entry into HRMES, CPPS and DCIS causes inefficiencies (it's the same information), room for human error, and data is not current (takes time to enter and wait on DCIS download twice per month).

The entire DOCs' Payroll timekeeping process is a paper process. Employees track their own hours worked on a google sheet, excel spreadsheet and/or word document. Supervisors then manually input the information from the document into DCIS. That data is then available to view in HRMES Timesheets, and the employee/supervisor then signs stating the information is correct. This process is the same for all DOC FTE employees.

Temporary aides/bi-weekly employees are also fully paper processes. Employees track their time on a word/pdf/excel spreadsheet, physically sign (wet signature), submit that sheet to a supervisor who then signs (wet signature), and then sends it to payroll. Payroll then audits the hours to ensure math is correct and then manually inputs those hours into a time/exception batch into CPPS.

Fiscal Year 2023-24 Information Technology Request

Revenue

Licensing and Case Management Software

SHORT PROJECT DESCRIPTION

The Department of Revenue (DOR) is requesting state funding for a new licensing and case management system.

PRIORITY NUMBERS

2024022

Prioritized By	Priority	
OSPB	Not Prioritized	Not recommended for funding.

PRIOR APPROPRIATION AND REQUEST INFORMATION

Fund Source	Prior Approp.	FY 2023-24	FY 2024-25	Future Requests	Total Cost
CCF	$0	$1,000,000	$9,000,000	$0	$10,000,000
Total	$0	$1,000,000	$9,000,000	$0	$10,000,000

PROJECT STATUS

This is a new, never-before-requested project.

PROJECT DESCRIPTION

DOR is requesting state funding for a new licensing and case management system to enable the department to have a new system in place before the contracts for the current systems expire. Additionally, the department is seeking to expand the availability of online applications and translation services through a new system.

The case management and licensing systems are used by the following divisions within the Specialized Business Group in the department: the Auto Industry Division, the Division of Gaming, the Liquor and Tobacco Enforcement Divisions, the Division of Racing Events, the Marijuana Enforcement Division, the Emissions Division within the Division of Motor Vehicles, and the Lottery Division.

PROJECT JUSTIFICATION

The contracts for the department's current licensing and case management systems through MyLicense Office will expire in June 2024, with two available options to extend for a period of one year or less through June 30, 2026. As such, the system is being reviewed for potential replacement based on the state procurement rules.

The current case management and licensing systems do not interface to transfer data between the two, which results in duplicate entries and errors in records and data. The department would instead prefer to have one combined system that is capable of all licensing and case management functionality. Additionally, the current system is not adequate for the needs of the department and staff are using multiple outside tools to store and track information. This creates inefficiencies in the processing and managing of applications, licensing information, and case-related documentation.

COST-BENEFIT ANALYSIS

The department was unable to quantify cost savings as required per Section 24-37-304 (1)(a.5)(V), C.R.S., but states that if it does not procure a new system, the department will lose the ability to issue certain licenses to businesses and individuals.

PROJECT COST INFORMATION

With the $1.0 million in funding for the first year, the department plans to formally begin the RFP process and gain a greater understanding of the options available in the marketplace. The $10.0 million estimate for the total project cost is based roughly on 80 percent of the high end of feedback the department received as a result of a market assessment of the system

requirements in FY 2020-21.

Operating budget. The department anticipates that the ongoing operating costs of the new system will be $150,000 higher than the current system's annual costs.

CASH FUNDS

The department indicates that each of the impacted divisions do not have sufficient cash funds to secure a new system. If the state funding request for the new system is not approved, the department states that each division would need to deplete any remaining cash fund balances and significantly increase fees or decrease distributions to beneficiaries to pay for the new system.

PROJECT RESEARCH

The department conducted market research related to this potential system replacement in 2019. The department also conducted a market assessment of the system requirements in FY 2020-21.

ADDITIONAL PROJECT INFORMATION

N/A

PROJECT SCHEDULE

	Start Date	Completion Date
Planning	July 2023	April 2024
Implementation	May 2024	June 2025
Testing	January 2025	June 2025
Closing	June 2025	June 2025

QUESTIONS

All questions have been incorporated into the analysis.

Fiscal Year 2023-24 Information Technology Request

Colorado State University
Upgrade Network Hardware

SHORT PROJECT DESCRIPTION

Colorado State University- Fort Collins (CSU-Fort Collins) is requesting a combination of state funds and cash funds spending authority for phase three of a three-phase project to upgrade out-of-date networking hardware.

PRIORITY NUMBERS

2020067

Prioritized By	Priority	
CCHE	1 of 10	
OSPB	Not Prioritized	Not recommended for funding.

PRIOR APPROPRIATION AND REQUEST INFORMATION

Fund Source	Prior Approp.	FY 2023-24	FY 2024-25	Future Requests	Total Cost
CCF	$1,187,119	$2,244,053	$0	$0	$3,431,172
CF	$710,001	$748,392	$0	$0	$1,458,393
Total	$1,897,120	$2,992,445	$0	$0	$4,889,565

PROJECT STATUS

This request is for phase three of a continuation project. Funding for phase one was appropriated for FY 2021-22 and funding for phase two was appropriated for FY 2022-23.

PROJECT DESCRIPTION

CSU-Fort Collins is requesting a combination of state funds and cash funds spending authority for phase three of a three-phase project to upgrade out-of-date networking hardware.

Year one of the project included the purchase of network switches for the CSU-Fort Collins campus. Due to the global supply chain issue, it is expected the shipment will arrive April or May 2023 and be deployed immediately. Year two will fund the additional network switches and network routers. Currently, CSU IT team is engineering a solution to design the core network for CSU. It is anticipated the team will release purchase orders for network routing equipment in FY 2022-24. Year three will include the final network switch procurements and upgrades to network routers and firewalls.

PROJECT JUSTIFICATION

According to CSU-Fort Collins, the new edge switches will provide a significant increase in capacity, from 100 megabyte to 1 gigabyte; provide Power over Ethernet (PoE) capability that is required for connection of various life and safety devices, including new videos surveillance systems; improve the IT security of users as this project will eventually replace the more 260 edge switches that are currently beyond end-of-life and no longer receiving necessary patches and upgrades; and accommodate two-factor authentication.

Additionally, the new edge switches will integrate with CSU's central, automated edge switch management, control, administration, and IT security configuration environment. The central system will enable all edge switches to be upgraded to the latest software and firmware configurations, maintain the latest IT security protections, and monitor patterns that may indicate an IT security issue.

Fiscal Year 2023-24 Information Technology Request

Colorado State University
Upgrade Network Hardware

COST-BENEFIT ANALYSIS

CSU-Fort Collins was unable to quantify cost savings as required per Section 24-37-304 (1)(a.5)(V), C.R.S, but states that receiving funding for this three-phase project will allow CSU to achieve self-sufficiency in supporting its seven-year upgrade cycle for its network equipment, including edge switches, beginning in year four.

PROJECT COST INFORMATION

CSU provided the following project cost information:

- Edge switches: $4,604 each
- Border Routers: $382,500 each
- Core switches: $333,030 each
- Firewalls: $612,000 each

CASH FUNDS

Cash funds derive from three sources: the student technology fee, the Provost, and the departmental units. All sources of cash funds will be consistent sources of revenue according to the institution.

PROJECT RESEARCH

CSU- Fort Collins states that according to a survey of peer institutions, the average replacement cycle for edge switches ranges from five to seven years. CSU- Fort Collins has adopted a seven-year replacement cycle to balance cost versus functionality. Cost estimates for the project were provided by CSU- Fort Collins' approved vendors.

ADDITIONAL PROJECT INFORMATION

N/A

PROJECT SCHEDULE

	Start Date	Completion Date
Planning	June 2021	August 2021
Implementation	August 2021	June 2024
Testing	August 2021	June 2024
Closing	August 2023	June 2024

QUESTIONS

Q. Please provide an update on the project and what has been accomplished to date.

A. This three-year plan to upgrade critical network infrastructure at the CSU-Fort Collins campus is aimed at replacing significantly aged network equipment in the portion of our network equipment in the portion of our network that serves academic and research functions, reducing cybersecurity risk by investing in new firewall and security equipment, and uplifting the core of our network to support next-generation network connectivity. This proposal includes funding for network equipment only- all resources required to deploy and support this equipment will be delivered by CSU staff. Support for this projects serves as a bridge-to-base funding, where CSU will be allocating internal budget to sustain the refresh of this infrastructure in the future having leveraged JTC funding to "catch up" with deferred maintenance.

Year one of this project funded in FY22, included the purchase of network switched for the CSU-Fort Collins campus. The purchase order for this equipment was issued in April 2022, however the supply chain has been challenging. Our vendor's current shipment forecast is April/May 2023, at which point our staff will immediately begin deployment.

Year two of this project, funded in FY 23, includes funding for additional network switches as well as network routers. Our teams are currently engineering their solution, working with vendor partners and campus stakeholders to design the next version of the CSU core network. We expect to release purchase orders for network routing equipment in FY23 Q3/Q4.

Year three of this project encompasses the final round of network switch procurements in addition to critical upgrades to our network routers and firewalls. When funded, this third phase of our integrated proposal will securely meet the existing demand that is unfulfilled and set the stage for next-generation connectivity to the Internet (100Gb+) for the CSU- Fort Collins campus.

Q. How does this request for funding interact with CSU Pueblo's request for funding for similar Wi-Fi infrastructure?

A. The two requests are independent. However, the two institutions are in the process of aligning their IT organizations and services under one CIO in partnership with the CSU-System office. This new organizational alignment will render IT support at both institutions more efficient and more effective and increase the ability of staff at both institutions to work across campus environments by aligning networking devices under the same manufacturer and models. Additionally, network infrastructure funded through this project is used to deliver IT services to the CSU System, which for services like student information system includes the CSU- Pueblo campus.

Fiscal Year 2023-24 Information Technology Request

Metropolitan State University of Denver
Network Infrastructure Modernization

SHORT PROJECT DESCRIPTION

Metropolitan State University of Denver (MSU Denver) is requesting a combination of state funds and cash funds spending authority for phase three of a three-phase project to modernize its network infrastructure and address deferred maintenance on current IT infrastructure.

PRIORITY NUMBERS

2021020

Prioritized By	Priority	
CCHE	2 of 10	
OSPB	Not Prioritized	Not recommended for funding.

PRIOR APPROPRIATION AND REQUEST INFORMATION

Fund Source	Prior Approp.	FY 2023-24	FY 2024-25	Future Requests	Total Cost
CCF	$2,045,000	$795,000	$0	$0	$2,840,000
CF	$500,000	$500,000	$0	$0	$1,000,000
Total	$2,545,000	$1,295,000	$0	$0	$3,840,000

PROJECT STATUS

This request is for phase three of a continuation project. Funding for phase one was appropriated for FY 2021-22 and funding for phase two was appropriated for FY 2022-23.

PROJECT DESCRIPTION

MSU Denver is requesting a combination of state funds and cash funds spending authority for phase three of a three-phase project to modernize its network infrastructure and address deferred maintenance on current IT infrastructure.

Once completed, the project will replace approximately 300 edge and distribution layer switches, 450 wireless access points, and provide additional access paths between campus buildings. The project has completed the installing of a fiber optic redundant path that will complete a campus loop to create diverse network paths in case of an unintended fiber cut. Phase one of the project focused on upgrading the network infrastructure in the Central Classroom and Jordan Student Success Building and is either in progress and near completion or complete. Phase two of the project will upgrade the infrastructure for the Physical Education and Science Buildings. Orders have been placed and will be implemented in either spring or summer 2023.

Phase three of the project will finish the project, upgrading an additional four buildings that house classrooms and student computer labs. Two of these buildings are shared and include classrooms and faculty offices for University of Colorado Denver, Community College of Denver, and MSU Denver.

PROJECT JUSTIFICATION

MSU Denver conducted a stakeholder outreach and consulted with several external, independent vendors to access the state of the current network infrastructure on campus. According to the assessment, 80 percent of the network switches on campus exceeded five years in service, 42 percent exceeded seven years in service and ten devices are ten years or older. The university also states that devices purchased prior to 2008 use an outdated system software that has not been updated since 2013.

According to MSU Denver, its network infrastructure is aging and needs to be updated in order to avoid system failure due to the increased use of wireless devices on campus. MSU Denver states it has experienced numerous network failures resulting from

its aged infrastructure, including 271 incidents from July 2020 to October 2020. These failures each resulted in a service interruption. As an example of these events, on October 23, 2019, the science building on campus experienced a complete wireless outage for over 14 hours due to a network switch hardware failure. During this time, the university states that courses and business operations for multiple departments were significantly disrupted.

Additionally, the university says that the funding requested will address single points of failure and increase network security through the installation of redundant fiber connections between buildings.

COST-BENEFIT ANALYSIS

MSU Denver was unable to quantify cost savings as required by Section 24-37-304 (1)(a.5)(V), C.R.S., but states that the project will prevent network failures and increase network security.

PROJECT COST INFORMATION

MSU Denver states the estimated switch and wireless access point costs are based on the number of devices and the average cost per device.

CASH FUNDS

A percentage of the cash funds that MSU Denver is proposing to use for this project is from the university's student technology fee, which is currently $8.30 per credit hour. The student technology fee generates approximately $3.2 million in revenue each year. MSU Denver anticipates using approximately $500,000 of this revenue each year after the completion of this project to sustain and maintain the new infrastructure that will be installed with this state funding.

PROJECT RESEARCH

MSU Denver's Information Technology Services performed an analysis of the current environment that included internal meetings and work sessions as well as consultation with several external, independent vendors. This resulted in the proposed projects and phases and consulting support.

ADDITIONAL PROJECT INFORMATION

N/A

PROJECT SCHEDULE

	Start Date	Completion Date
Planning	July 2021	December 2022
Implementation	December 2021	July 2024
Testing	December 2021	June 2024
Closing	June 2024	June 2024

QUESTIONS

Q. Please provide an update on your project's progression. Relatedly, how many edge and distribution layer switches, wireless access points, and network paths have been implemented so far?

A. Since our last update where we communicated that a formal RFP was completed and awarded to Lewan Technologies, the following milestones are either in progress or completed.

Fiber Optic Redundant Path – This phase of the project involves installing fiber optic infrastructure to complete a campus network loop to create diverse network paths in case of an unintended fiber cut. Complete.

Network Infrastructure Phase 1:

- Phase 1 will focus on upgrading the network infrastructure in the Central Classroom and Jordan Student Success Building (JSSB). Central Classroom network infrastructure will be upgraded during the fall break (November 20 through November 23rd). JSSB network infrastructure will be upgraded before the winter break (December 16th through December 22nd)
- Central Classroom- The following equipment has been purchased for this upgrade: 2 Cisco 9300 Distribution Layer switches, 124 MerakinMR46 AP's, and a number of auxiliary equipment such as, Smart UPS, redundant supervisor modules, stacking kits, connectors, etc. Complete.
- Central Classroom – All writing and AP mounting for the new AP's completed on all floors.
- Central Classroom – Currently configuring all switched in preparation for the upgrade starting November 20th. In-Progress.
- JSSB – the following equipment has been purchased for this upgrade: 2 Cisco 9300 Distribution Layer switched, 62 Cisco 9200 Access Layer switches, 175 Meraki MR46 AP's, and a number of auxiliary equipment such as Smart UPS, redundant supervisor modules, stacking kits, connections, etc. Complete.
- JSSB – Writing prep work has started on the 1st floor. In-Progress.

Network Infrastructure Phase 2:

-Phase 2 will focus on upgrading the network infrastructure in the Physical Education and Science Buildings. Implementation date will be targeted for either Spring or Summer 2023 once we receive more accurate delivery dates especially for the Cisco 9200 switches which continues to have the longest lead times.
-Physical Education – The following equipment has been ordered for this upgrade: 2 Cisco 9300 Distribution Layer switched, 11 Cisco 9200 Access Layer switches, 97 Meraki MR46 AP's, and a number of auxiliary equipment such as, Smart UPS, redundant supervisor modules, stacking kits, connectors, etc. Order completed.
-Science – The following equipment has been ordered for this upgrade: 2 Cisco 9300 Distribution Layer switches, 51 Cisco 9200 Access Layer switches, 303 Meraki MR46 AP's, and a number of auxiliary equipment such as, Smart UPS, redundant supervisor modules, stacking kits, connectors, etc. Order completed.

Fiscal Year 2023-24 Information Technology Request

Community College of Denver

Classroom and Conference Room Technology

SHORT PROJECT DESCRIPTION

The Community College of Denver (CCD) is requesting funding for phase three of a three phase project to replace, update, and standardize the college's classroom and conference room technology.

PRIORITY NUMBERS

2021019

Prioritized By	Priority	
CCHE	3 of 10	
OSPB	Not Prioritized	Not recommended for funding.

PRIOR APPROPRIATION AND REQUEST INFORMATION

Fund Source	Prior Approp.	FY 2023-24	FY 2024-25	Future Requests	Total Cost
CCF	$3,128,018	$1,627,899	$0	$0	$4,755,917
CF	$199,661	$103,908	$0	$0	$303,569
Total	$3,327,679	$1,731,807	$0	$0	$5,059,486

PROJECT STATUS

This request is for phase three of a continuation project. Funding for phase one was appropriated for FY 2021-22 and funding for phase two was appropriated for FY 2022-23.

PROJECT DESCRIPTION

CCD is requesting state funds and cash funds spending authority for phase three of a three-phase project to replace, update, and standardize the college's classroom and conference room technology. The technology that will be replaced or updated throughout the college's classrooms and conference rooms includes conferencing and telecom equipment, screen sharing equipment, projection and video display equipment, connecting and switching equipment, and conference phones. This project will allow the college to implement distance learning technology, wireless projection, instruction capture, digital whereabouts, and "bring your own device" connectivity.

CCD has provided an updated spreadsheet of their progress on classrooms and conference rooms, included as Attachment A.

PROJECT JUSTIFICATION

According to CCD, most of the college's classroom equipment is now seven years or older and is not standardized across the college. This project will enable CCD to purchase new equipment for use in the college's classrooms and conference rooms that will provide new capabilities, enable innovation in teaching, and enhance student learning. By standardizing the equipment used in the college's classrooms, CCD believes college faculty will be able to spend less time setting up and figuring out how to use or fix the technology in various parts of the college and spend more time on instruction.

According to CCD, the current classroom and conference room technology has a high rate of failure. As of 2019, there were 72 failures reported each month in the rooms that are proposed to be included in this project. It is becoming more common for the support contractor to have to completely replace equipment as they are less likely to be able to repair the equipment to a viable operating state.

Fiscal Year 2023-24 Information Technology Request

Community College of Denver
Classroom and Conference Room Technology

COST-BENEFIT ANALYSIS

CCD was unable to quantify cost savings, as required by Section 24-37-304 (1)(a.5)(V) C.R.S., but states that the project will reduce staff time spent setting up technology, which will increase the amount of time spent on instruction and therefore improve student retention and completion.

PROJECT COST INFORMATION

CCD has provided the following cost estimates for the three-phase project:

- AV equipment: $4,466,142
- Professional services: $352,416
- 5 percent project contingency: $240,928

CASH FUNDS

CCD plans to use cash reserves to fund the cash portion of the project. The college does not currently charge a student technology fee. According to CCD, this is because the colleges' fees are among the highest in the state for community colleges due to a mandatory Auraria campus fee.

PROJECT RESEARCH

Cost estimates for this project are based on vendor quotes for a standard technology solution in each area.

ADDITIONAL PROJECT INFORMATION

N/A

PROJECT SCHEDULE

	Start Date	Completion Date
Planning	July 2021	August 2021
Implementation	August 2021	December 2023
Testing	August 2021	December 2023
Closing	December 2023	December 2023

QUESTIONS

N/A

Fiscal Year 2023-24 Information Technology Request

Colorado School of Mines, Metropolitan State University of Denver

Collaboratively Transforming the ERP/SIS Experience

SHORT PROJECT DESCRIPTION

Metropolitan State University of Denver (MSU Denver) and the Colorado School of Mines (Mines) are requesting a combination of state funding and cash funds spending authority for phase three of a four-phase project to modernize the institutions' Enterprise Resource Planning (ERP) and Student Information System (SIS).

PRIORITY NUMBERS

2022059

Prioritized By	Priority	
CCHE	3 of 10	
OSPB	Not Prioritized	Not recommended for funding.

PRIOR APPROPRIATION AND REQUEST INFORMATION

Fund Source	Prior Approp.	FY 2023-24	FY 2024-25	Future Requests	Total Cost
CCF	$7,743,000	$11,354,456	$9,320,245	$0	$28,417,701
CF	$896,000	$1,146,613	$931,923	$0	$2,974,536
Total	$8,639,000	$12,501,069	$10,252,168	$0	$31,392,237

PROJECT STATUS

This request is for phase three of a continuation project. Funding for phase one was appropriated for FY 2021-22, and funding for phase two was appropriated for FY 2022-23. The past two requests have been made separately by the two institutions, whereas this year the institutions have submitted a combined request.

PROJECT DESCRIPTION

MSU Denver and Mines are requesting a combination of state funding and cash funds spending authority for phase three of a four-phase project to modernize the institutions' ERP and SIS systems and move to cloud solution ERP and SIS systems. The ERP and SIS systems are used across all key business operations for the institutions, such as human capital management, finance, payroll, and student information (e.g., grades, attendance records, admissions information, and financial aid).

The institutions began a project to modernize the ERP and SIS systems in 2021, when they received funding for phase one of the project. Since then, the institutions have been working to implement the Workday Human Capital Management/Financials platform for the ERP system. MSU Denver anticipates a go-live on January 1, 2023, and Mines anticipates a go-live on July 1, 2023. Funding from this year's request for phase three will be used to complete the implementation of the ERP system at both schools, as well as begin the development and implementation of the SIS system, which tends to be more complicated.

PROJECT JUSTIFICATION

The current ERP/SIS systems used by MSU Denver and Mines, Ellucian Banner, were implemented in 1998 and 2005, respectively. Since then, MSU Denver and Mines have had to implement various third-party and custom applications to provide necessary functionality that is not provided in their current ERP and SIS systems. The institutions have also had difficulty in recruiting IT professionals to maintain the current ERP and SIS systems that are housed on-premises. These on-premises systems also require significant infrastructure and costs to maintain. For example, at MSU Denver, the current system requires 50 virtual servers, 6 enterprise databases, and robust backup infrastructure with an onsite datacenter.

Additionally, investing in new ERP and SIS systems will enable the institutions to better meet the technology expectations of today's students, faculty, and staff; generate more usable data that will better inform decisions; reduce risk and provide greater system reliability; and allow IT and other personnel to shift their focus to other high-priority projects.

COST-BENEFIT ANALYSIS

According to the institutions, a total of approximately $6.5 million is spent annually to support the on-premises ERP/SIS solution, including licensing, infrastructure, staffing, and ancillary systems. By moving to a modernized ERP/SIS cloud-based solution, the institutions anticipate gross cost savings of nearly $8 million over the contract term, and a net savings of approximately $4.3 million. The institutions also expect significant savings in staff time due to business process improvements with the new systems.

PROJECT COST INFORMATION

These institutions have realized significant cost savings by engaging in this project through a collaborative approach. This includes a net software licensing savings of over 13 percent and an anticipated implementation savings of approximately 20 percent. These combined with other savings from collaborating with the other institutions undertaking a modernization of their ERP and SIS systems amount to approximately $11.4 million in savings for MSU Denver and Mines.

CASH FUNDS

A percentage of the cash funds that MSU Denver has been using for this project is from the university's student technology fee, which is $8 per credit hour. Mines has been using a small reserves fund that has been designated for major IT initiatives as the source of cash funds for the project from their institution.

PROJECT RESEARCH

In 2019, MSU Denver contracted with CampusWorks Inc., an independent consulting organization, to perform an assessment of the institution's current ERP/SIS system. Campus Works Inc., found that the current system is not meeting the needs of faculty, staff, and students, and recommended replacing the current Ellucian Banner system. In April 2020, Mines contracted for an independent ERP change readiness and feasibility assessment that was performed by BerryDunn.

Current cost estimates for the project are based on the ongoing work with the selected vendor for the ERP system, Workday.

ADDITIONAL PROJECT INFORMATION

Attachment A contains a Letter of Intent from the Presidents of MSU Denver, Mines, the University of Northern Colorado, and Colorado Mesa University, outlining their institutions' commitment to a collaborative approach to the implementation of new ERP systems at these institutions. This letter was provided to the Joint Technology Committee in 2021 as part of the FY 2022-23 budget process.

PROJECT SCHEDULE

	Start Date	Completion Date
Planning	July 2020	September 2023
Implementation	July 2022	September 2025
Testing	July 2022	September 2025
Closing	June 2024	September 2025

QUESTIONS

Q. Please provide an update on the status of the project at the two institutions.

A. Mines and MSU Denver have diligently worked on the Human Capital Management and Financials implementation over the past year, making significant strides and transforming key business processes across our respective institutions. The partnership has allowed one implementer (or Collaborative Solutions) to guide both projects, ensuring efficient implementations. MSU Denver anticipates a go-live on the Workday HCM/Fin Platform on January 1, 2023, and Colorado School of Mines projects

a go-live on July 1, 2023. Mines has chosen a later date to implement a new identity and access management platform, further test payroll, and include HR functions not in the original scope.

Q. Please explain why the two institutions have decided to submit this as one budget request item this year and how the collaboration between the two institutions has evolved over the course of the project.

A. Mines and MSU Denver have worked closely together on this initiative for several years, collaborating on language for consulting engagements, RFPs, and funding proposals while aligning our efforts to the extent possible. Following last year's conversations with committee members, we felt that, by formalizing our partnership, we had the opportunity to formalize our collaboration. Project team members from our schools collaborate regularly, sharing documentation, process ideas, workarounds, integration assets, and report designs. We requested shared consulting resources from our implementation partner wherever practicable, creating an additional bridge between the projects. Technology leadership has standing biweekly meetings to discuss opportunities and challenges, assisting each other where possible and prudent; in particular, we have benefited from collaboration in the testing process, integration development, and report writing areas.

Q. What would the impact be if the institutions did not receive the requested funding this year?

A. Each school has invested significant time and resources to date interviewing, evaluating, and vetting candidate solutions. MSU Denver has dedicated over 1,000 hours of staff time reviewing Student Information System platforms and is prepared to invest in ancillary projects that will position the institution for the SIS project over the next six months, including implementation of a new identity and access management platform and a middleware integration solution. Similarly, Colorado School of Mines is pursuing comparable projects and dedicating staff time to prepare for the SIS transformation. While these efforts will benefit the institutions in the long run, we are aggressively approaching them now in anticipating of further transformation on the horizon.

More importantly, both institutions understand the criticality of these systems to our respective student populations and are anxious to push forward with a transformative change in the student experience. We feel strongly that investing in this initiative now will position our institutions to respond to the needs of Colorado's 21st Century Learners, providing cloud-based, secure, mobile-friendly, inclusive, and accessibly designed platforms to over 20,000 Colorado students.

We believe that the only path toward completion of this transformation is through the State appropriations process. As such, if we do not receive the requested funding, we will likely pause the projects and request funding again in subsequent years. With inflation impacting all market sectors, we anticipate that costs will increase year to year for both software licensing and consulting services, meaning that future requests will be larger than the present estimates.

May 20, 2021

Senator Jeff Bridges, Chair
Representative Brianna Titone, Vice Chair
Joint Technology Committee
200 East Colfax Avenue
Denver, CO 80203

Chair Bridges and Vice Chair Titone:

We are pleased to share that our institutions have made a formal commitment to jointly negotiate consortium pricing with a single vendor for our enterprise resource planning system (ERP) placement initiatives. We expect that our collaborative work with help reduce costs and yield implementation efficiencies across our individual projects in years ahead.

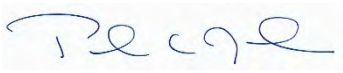
Our institutions have worked directly with a potential ERP vendor to discuss a pricing discount proportionate the volume of system licenses our five campuses would collectively secure. Conversations between our universities have also allowed us to identify common interest in custom ERP integrations for systems we utilize, such as Banner, Degree Works, Colorado Higher Education Insurance Benefits Alliance (CHEIBA) Trust, College Opportunity Fund (COF) and Colorado Operations Resource Engine (CORE). By pursuing these foundational integrations for all of our ERPs, system development and implementation become more time efficient and are expected to generate reductions in future phase costs for our projects. In addition to efficiencies in future costs and ongoing licensing expenses, our collaboration also formalizes a community of practice focused on ERP implementation that will provide opportunities for joint training, support, and problem solving. These areas of identified potential savings will benefit all five institutions throughout project implementation and create a chance for other Colorado colleges and universities to benefit from our work, should they embark on similar ERP replacement initiatives in the future.

Significant progress has been made over the last month to identify areas of possible cost reduction driven by the size and scale of our collective projects. A commitment of funds from the State would allow us to further this work to ensure economical pricing with a single ERP vendor.

We are hopeful that our collaborative efforts, and the expected future financial savings to our ERP projects, demonstrate our shared interest in an effective and cost-efficient solution to our needs. Thank you for your continued support of our requests.

Sincerely,

Janine A. Davidson, Ph.D.
President, Metropolitan State University of Denver



Paul C. Johnson, Ph.D.
President, Colorado School of Mines

Andy Feinstein, Ph.D.
President, University of Northern Colorado

Tim Foster
President, Colorado Mesa University

cc: Representative Mark Baisley
Representative Tracey Bernett
Senator Chris Kolker
Senator Kevin Priola

Fiscal Year 2023-24 Information Technology Request

Colorado Mesa University
ERP Modernization

SHORT PROJECT DESCRIPTION

Colorado Mesa University (CMU) is requesting one-time state funding to implement cloud software-as-a-service human resources (HR) and finance enterprise resource planning (ERP) systems and develop a data management and data integration strategy.

PRIORITY NUMBERS

2024032

Prioritized By	Priority	
CCHE	9 of 10	
OSPB	Not Prioritized	Not recommended for funding.

PRIOR APPROPRIATION AND REQUEST INFORMATION

Fund Source	Prior Approp.	FY 2023-24	FY 2024-25	Future Requests	Total Cost
CCF	$0	$3,290,340	$0	$0	$3,290,340
CF	$0	$369,660	$0	$0	$369,660
Total	$0	$3,660,000	$0	$0	$3,660,000

PROJECT STATUS

This request is similar to a previously requested project from FY 2022-23, which did not receive funding.

PROJECT DESCRIPTION

For FY 2022-23, CMU had requested funding for the following three initiatives:

1) migrate CMU's Ellucian student information system (SIS) to Ellucian's Managed Cloud;
2) implement cloud software-as-a-service HR and finance ERP systems; and
3) develop a data management and data integration strategy through the implementation of a data fabric and enterprise integration platform-as-a-service solution.

CMU did not receive the requested state funding for the project last year; however, CMU has decided to use institution cash funds to fund phase one of the project. This decision was based on Ellucian's ending its Application Managed Services in 2022, which provided CMU with database administrator services and software maintenance and upgrades. The total estimated cost of phase one, which will involve migrating the CMU SIS to Ellucian's Managed Cloud running on Amazon Web Services, is estimated to cost $610,000 with an estimated go-live in February 2023.

For FY 2023-24, CMU is requesting state funding to complete phases two and three of the project.

PROJECT JUSTIFICATION

CMU began using Ellucian Banner for its ERP/SIS in 1990 in an on-premises environment. With Ellucian not renewing its Application Managed Services contract beginning in 2022, CMU has been evaluating other alternatives. CMU believes that moving to a cloud software-as-a-service ERP vendor will allow their institution to have new functionalities released at a faster pace than upgrades available for on-premises solutions. Additionally, the development of comprehensive data management and data integration strategies will enable the deployment of more loosely coupled enterprise applications and allow systems of record and applications to work seamlessly together.

Fiscal Year 2023-24 Information Technology Request

Colorado Mesa University
ERP Modernization

COST-BENEFIT ANALYSIS

The cost-benefit analysis provided by CMU is included as Attachment A.

PROJECT COST INFORMATION

HR and Finance SaaS
- ERP Consulting Services: $300,000
- Human Capital Management Software Subscription & Training: $1,176,000
- Finance Management Software Subscription & Training: $1,108,000
- Temporary Staff in Functional Departments: $300,000

Data Management and Data Integration
- Data Hub Licensing/Subscription: $193,500
- Integration Platform-as-a-Service Subscription: $249,773

10 percent Contingency: $332,727

CASH FUNDS

CMU is proposing to fund 10.1 percent of the project from institutional cash funds, including potential external cash funding, partnerships, or one-time internal funding.

PROJECT RESEARCH

CMU developed the cost estimates for this project using estimates from competing ERP vendors, technology consultant input, and information shared among Colorado institutions of higher education that are collaborating on efforts to modernize ERP/SIS systems.

ADDITIONAL PROJECT INFORMATION

CMU continues to meet regularly with the other institutions undergoing modernizations of their ERP/SIS systems, including Metropolitan State University of Denver, the Colorado School of Mines, and the University of Northern Colorado. CMU's project schedule does not provide the opportunity for direct collaboration with another peer institution, but CMU will continue to collaborate with other institutions on certain aspects of the project when possible. Attachment B contains a Letter of Intent from the Presidents of Metropolitan State University of Denver, the Colorado School of Mines, the University of Northern Colorado, and Colorado Mesa University, outlining their institutions' commitment to a collaborative approach to the implementation of new ERP systems at these institutions, which was provided to the Joint Technology Committee in 2021 as part of the FY 2022-23 budget process.

PROJECT SCHEDULE

	Start Date	Completion Date
Planning	July 2023	March 2024
Implementation	December 2023	March 2025
Testing	March 2024	March 2025
Closing	March 2025	June 2025

QUESTIONS

Q. It appears that the university is proposing a project that has a similar scope to the one being proposed by the University of Northern Colorado. However, the request from UNC for their project is significantly less than Colorado Mesa's request. Please describe the differences between the two projects and why there is such a significant cost difference between the two requests.

A. The University of Northern Colorado's proposed project is more appropriately matched to CMU's in-progress, cash-funded project to migrate Banner ERP/Student Information System to Ellucian's Managed Cloud running on Amazon Web Services. Colorado Mesa understands that the UNC project includes work to develop a data hub, improve authentication services, and implement an integration platform. The components of UNC's proposed project to develop of a data hub and implement an integration platform would align with CMU's current FY 2023-24 project request under the development a data management and data integration strategy. CMU's estimated cost to implement its data management and data integration strategy is $488,000.

Colorado Mesa University
Attachment A

Colorado Mesa University
Project: FY2023-24 ERP Modernization
Annual Operating Cost-Benefit Analysis

	New Applications	Replaced Applications	
Technology	**SaaS Suite**	**Current Expenses**	**Expected Purchases**
Human Capital Management			
HR Administrative Software[1]	$ 280,000	$ (45,500)	
Managed Cloud Services[2]		$ (57,500)	
Applicant Tracking		$ (22,500)	
Performance Management			$ (20,000)
Learning		$ (9,600)	
Finance Management			
Finance Software[3]	$ 212,000	$ (35,600)	
Managed Cloud Services[2]		$ (63,700)	
Travel and Expense			$ (21,700)
Budgeting and Forecasting			$ (30,000)
Technology Subtotal:	$ 492,000	$ (234,400)	$ (71,700)
Change to Technology Expenses:			$ 185,900
Business Benefits			**Labor Productivity[4]**
IT Application Programmer[5]			$ (126,727)
Manage HR Reporting[6]			$ (17,640)
Manage Finance Reporting[7]			$ (60,240)
Manage Budgeting and Planning[8]			$ (108,500)
Manage Programs and Projects[9]			$ (56,300)
Manage Travel and Expense[10]			$ (54,800)
Business Benefits Subtotal:			$ (424,207)
Annual Operating Cost-Benefit Calculation (change in operating expenses):			**$ (238,307)**

Notes:

(1) HR Administrative Software SaaS Suite includes core HR, payroll, benefits, performance management, recruiting, talent acquisition, and learning.

(2) Managed Cloud Services includes processing and storage infrastructure, operating systems, data backups, security audits, and software patching and upgrades.

(3) Finance Software SaaS Suite includes core Finance, revenue management, expenses, procurement, financial planning, and analytics.

(4) Negative amounts shown indicate a savings or cost avoidance in annual operating costs.

(5) Information Technology (1 FTE) time supporting HR/Finance software customizations shifted to strategic technology initiatives.

(6) Reduce HR staff time necessary for regulatory and state reporting requirements.

(7) Reduced Finance staff time for calculating institutional spending, cash flow, and expenditures.

(8) Faster budget preparation and budget forecasting. Savings based on Budget Office staff time and university-wide budget managers time during budget submission process.

(9) Reduced operations staff time to manage and track capital construction and programming project expenses.

(10) Reduced Accounts Payable Specialist and business traveler time to prepare, approve and audit travel expense reports. Largest benefactors are Admissions and Athletics. Based on 1,500 travel expense reports processed each year.

May 20, 2021

Senator Jeff Bridges, Chair
Representative Brianna Titone, Vice Chair
Joint Technology Committee
200 East Colfax Avenue
Denver, CO 80203

Chair Bridges and Vice Chair Titone:

We are pleased to share that our institutions have made a formal commitment to jointly negotiate consortium pricing with a single vendor for our enterprise resource planning system (ERP) placement initiatives. We expect that our collaborative work with help reduce costs and yield implementation efficiencies across our individual projects in years ahead.

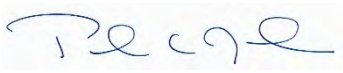
Our institutions have worked directly with a potential ERP vendor to discuss a pricing discount proportionate the volume of system licenses our five campuses would collectively secure. Conversations between our universities have also allowed us to identify common interest in custom ERP integrations for systems we utilize, such as Banner, Degree Works, Colorado Higher Education Insurance Benefits Alliance (CHEIBA) Trust, College Opportunity Fund (COF) and Colorado Operations Resource Engine (CORE). By pursuing these foundational integrations for all of our ERPs, system development and implementation become more time efficient and are expected to generate reductions in future phase costs for our projects. In addition to efficiencies in future costs and ongoing licensing expenses, our collaboration also formalizes a community of practice focused on ERP implementation that will provide opportunities for joint training, support, and problem solving. These areas of identified potential savings will benefit all five institutions throughout project implementation and create a chance for other Colorado colleges and universities to benefit from our work, should they embark on similar ERP replacement initiatives in the future.

Significant progress has been made over the last month to identify areas of possible cost reduction driven by the size and scale of our collective projects. A commitment of funds from the State would allow us to further this work to ensure economical pricing with a single ERP vendor.

We are hopeful that our collaborative efforts, and the expected future financial savings to our ERP projects, demonstrate our shared interest in an effective and cost-efficient solution to our needs. Thank you for your continued support of our requests.

Sincerely,

Janine A. Davidson, Ph.D.
President, Metropolitan State University of Denver



Paul C. Johnson, Ph.D.
President, Colorado School of Mines

Andy Feinstein, Ph.D.
President, University of Northern Colorado

Tim Foster
President, Colorado Mesa University

cc: Representative Mark Baisley
Representative Tracey Bernett
Senator Chris Kolker
Senator Kevin Priola

Fiscal Year 2023-24 Information Technology Request

Fort Lewis College, Western Colorado University
Next Generation WiFi

SHORT PROJECT DESCRIPTION

Fort Lewis College (FLC) and Western Colorado University (Western) have requested one-time state funding for a project to improve the institutions' WiFi networks.

PRIORITY NUMBERS

2024036

Prioritized By	Priority	
CCHE	8 of 10	
OSPB	Not Prioritized	Not recommended for funding.

PRIOR APPROPRIATION AND REQUEST INFORMATION

Fund Source	Prior Approp.	FY 2023-24	FY 2024-25	Future Requests	Total Cost
CCF	$0	$1,760,438	$0	$0	$1,760,438
CF	$0	$75,264	$0	$0	$75,264
Total	$0	$1,835,702	$0	$0	$1,835,702

PROJECT STATUS

This is a new, never-before-requested project.

PROJECT DESCRIPTION

FLC and Western have requested one-time state funding for a project to improve the institutions' WiFi networks. The project will upgrade the supporting infrastructure of Access Points (APs), network switches, core networking switches, and introduce cloud-based controllers to support WiFi 6 coverage. FLC and Western have collaborated to design similar networks, allowing the ability to use the same vendors, equipment, and purchasing agreements.

PROJECT JUSTIFICATION

With state funding, the institutions would be able to upgrade their WiFi network at once. Over the last 20 years, the institutions have been installing and upgrading equipment piecemeal as funding is available. This has led to the institutions having to use mixed technologies from different vendors, which is more difficult to support, generally less reliable, more difficult to upgrade, and provides lower quality and inconsistent service. This infusion of state funding would allow the institutions to move to WiFi 6 across the campuses, which will provide faster and more reliable service to students and staff.

COST-BENEFIT ANALYSIS

By working together, approximately 17 percent, or $338,462, will be saved. Additionally, the partnership allows for the purchase of equipment in bulk and the acquisition of software and cloud services at a fixed cost saving $671,794 over the proposed contract term of seven years. Overall, this would save 39 percent or $1,010,255.

PROJECT COST INFORMATION

The institutions provided the following project cost information:

- Professional Services: $71,200
- Equipment (WiFi 6/6e Access Points, distribution switches, miscellaneous cables, patch panels, mounting hardware, etc.): $1,259,997

- Software (cloud based controller software subscription for seven years): $294,461

CASH FUNDS

The institutions are planning to use the institutional reserves to fund the cash fund portion of this project. The following is a breakdown of the cash fund provided by the institutions:

- Fort Lewis College: $38,385
- Western: $36,879

PROJECT RESEARCH

Both institutions have been working with a network vendor to design and price the network equipment required for this project. By combining their efforts, the project is more cost effective than the standard National Association of State Procurement Officials.

ADDITIONAL PROJECT INFORMATION

The network managers and engineers of both institutions have collaborated on similar networks and are working with an implementation vendor to verify the configurations, hardware, software, and pricing. Additionally, the network engineering staff for both institutions will be participating in training from the vendor.

PROJECT SCHEDULE

	Start Date	Completion Date
Planning	January 2022	May 2022
Implementation	July 2023	June 2025
Testing	January 2024	June 2025
Closing	May 2025	June 2025

QUESTIONS

Q. How will this change be implemented across two campuses cohesively?

A. The Network Managers and Engineers of FLC and Western have collaborated on a substantially similar network. The institutions are working closely with an implementation vendor to verify the configurations, hardware, software, and pricing. The institutions will receive volume discounted pricing from the single vendor but will place and receive individual orders to our respective campus. The Network Engineering staff of each institution will jointly be participating in the same vendor supplied the training and will continue to maintain a close relationship. Ultimately each institution will be responsible for the implementation of their respective campus.

Q. Please provide a breakdown of your change management plan.

A. The project goal is a transparent implementation with minimal to no user disruption, requiring minimal user training. The implementation of the change management plan will focus on 5 basic principles.

Scope Determination and Risk Analysis
- This is substantially completed, FLC and Western have identified all the locations and network equipment to be replaced. Research into the impact and compatibility of known user devices has been completed and will be ongoing. Support plans for incompatible devices are being considered and will be finalized before implementation.

Peer Review

- This is substantially completed and will be repeated before equipment is ordered. The Network Engineers at FLC and Western along with the implementation vendor have deployed and reviewed the network architecture, hardware, and software.

Pre-deployment testing and validation
- This is substantially completed. A prototype network environment has been deployed at FLC and is currently in use. The network engineers are confident this is the correct environment to deploy. Given the timing of funding and possible equipment changes a new test environment may be built and tested.

Implementation and testing
- Production implementation begins with low impact buildings and networks first. Once these networks are stable then the implementation will move on to higher impact networks and locations.

Documentation updates
- Working with the implementation partner assure system monitoring and management systems are accurate and production ready.

Fiscal Year 2023-24 Information Technology Request

Community College of Aurora
Improving Server Room

SHORT PROJECT DESCRIPTION

The Community College of Aurora (CCA) is requesting one-time state funding to make improvements to the institution's core server room.

PRIORITY NUMBERS

2024023

Prioritized By	Priority	
CCHE	5 of 10	
OSPB	Not Prioritized	Not recommended for funding.

PRIOR APPROPRIATION AND REQUEST INFORMATION

Fund Source	Prior Approp.	FY 2023-24	FY 2024-25	Future Requests	Total Cost
CCF	$0	$814,740	$0	$0	$814,740
CF	$0	$71,093	$0	$0	$71,093
Total	$0	$885,833	$0	$0	$885,833

PROJECT STATUS

This is a new, never-before-requested project.

PROJECT DESCRIPTION

CCA is requesting one-time state funding to improve the institution's core server room. The project will involve remediating five critical areas, including:

- life safety standards for data center safety;
- assessing and improving the status of redundant and multipath power sources, capabilities of the uninterruptible power supply (UPS) systems, power conditioning, and generator backups;
- evaluating and re-ducting the HVAC system to ensure the balanced removal of supplied air and proper heating, cooling, and humidity control for the data center equipment;
- remediation and elimination of redundant or obsolete equipment, including wiring cleanup, pipe remediation, and HVAC remediation and right-sizing; and
- technology investments, including server replacements, ladder racks, over racks, and cable and fiber management.

PROJECT JUSTIFICATION

According to CCA, the current state of the IT infrastructure in the institution's server room is functionally obsolete, including servers that are more than six years old, wiring that is unorganized, and piping that poses risks of damage. CCA provided images of the current state of the server room, which are included in Attachment A.

CCA currently experiences periodic system failures and instability due to the current state of the server room, including power instability and legacy hardware failure. These failures occur every couple of weeks, on average, according to CCA. One recent example provided by CCA is the Lenel Database crash in late October 2022, when CCA discovered that the software was four versions behind and did not work on legacy hardware and no updates were available for the legacy hardware. According to CCA, an outside consultant spent 240 labor hours to resolve the issue with a repair cost of almost $56,000. Additional CCA staff time is spent rebuilding the server, which has happened approximately 10 times this year, and dealing with HP Synergy Blade System hardware issues.

Various life safety systems, including E911 capabilities and duress buttons on campus, rely on networks that relay through the CCA server room. Additionally, students, faculty, and staff rely on networks and access to files that are stored in the server room.

The project will allow CCA to implement a more secure and stable environment for the server room, including access control, cooling, ventilation, fire suppression, and overall organization.

COST-BENEFIT ANALYSIS

CCA was unable to provide a quantified cost-benefit analysis, as outlined in Section 24-37-304 (1)(a.5)(V), C.R.S.; however, CCA states that the project will mitigate against future damage. For example, there is a water pipe that currently runs through the server room, which could cause significant damage and expenses from equipment damage, data loss, and down time if the pipe were to break. Additionally, CCA estimates that the amount of staff hours spent on monitoring the legacy servers and networks could be reduced by more than half, from approximately 12 hours per week to 2-6 hours per week. Finally, significant staff and contractor hours are spent responding to system failures in the server room.

PROJECT COST INFORMATION

CCA provided the following cost estimates for the project.

Professional services:
- Architect and engineer consultants: $35,302
- QA for benchmarking and performance testing, and configuration validation: $5,000
- Training at $5,700 per employee for VMWare, vSphere Administration, HPE Synergy OneView Administration and Maintenance, Nimble Array: $22,800
- Initial Nimble install and support: $31,720
- Projected inflation from estimate to day of purchase: $11,379

Renovation of space:
- Reroute waterlines to avoid server room: $5,300
- Fire suppression system: $22,200
- Raise floor: $10,000
- Float, patch, and paint walls: $2,500
- Reroute and improve HVAC system ducting and airflow: $12,000
- Dedicated new 30kVA electrical line: $17,000
- Hard deck ceiling replacement: $11,000
- Demolition of legacy systems: $117,000
- Projected inflation from estimate to day of purchase: $23,640

Licenses
- VMWare for servers: $15,000

Equipment
- Two Nimble servers: $148,280
- Synergy Blade Chassis, six Synergy 480 or newer blades and supporting network components: $183,182
- Two Lenel door security servers: $30,000
- HVAC server replacement: $15,000
- Server rack: $5,000
- Workstation for server room: $1,500
- Network cabling, ladder, ladder rack, grounding, and bonding: $23,000
- APC in row chilled water cooling system: $50,000
- Security system: $7,500

10 percent contingency
- $80,530

Fiscal Year 2023-24 Information Technology Request

Community College of Aurora
Improving Server Room

CASH FUNDS

The cash funds CCA is proposing to use comes from a student technology fee.

PROJECT RESEARCH

CCA developed the cost estimates for this request based on consultations with equipment vendors.

CCA examined five alternatives to the project being requested, including doing nothing, moving the server room to a different room on campus, installing a prefabricated modular data center either internal or external to the administrative building, and moving the data center to the cloud. However, CCA elected not to move forward with these options and to instead request funding to remediate the current server room due to various space and cost constraints.

ADDITIONAL PROJECT INFORMATION

N/A

PROJECT SCHEDULE

	Start Date	Completion Date
Planning	July 2023	December 2023
Implementation	December 2023	April 2024
Testing	December 2023	June 2024
Closing	June 2024	June 2024

QUESTIONS

Q. Please describe how this project would interact with the Improving Student Access to Technology (ISAT) project that CCA received $476,923 CCF funding for in FY 2022-23 to improve wireless access on campus. Please also provide an update on the status of that project.

A. By improving the condition of the CCA IT/Server room with new equipment, this project will interact with the ISAT project by providing students and faculty with considerably less interrupted service and downtime on the networks. The ISAT project scope is outside of the physical server room whereas this project is within a single server room and built to overlap and prepare for the sunsetting of equipment at the Lowry Campus.

The ISAT project is in its infancy at this time and should start seeing expenditures soon. The timing of the two projects aids in the prevention of duplicated costs or temporary purchases.

Exhibit A

Image 1 - Server Room Entry

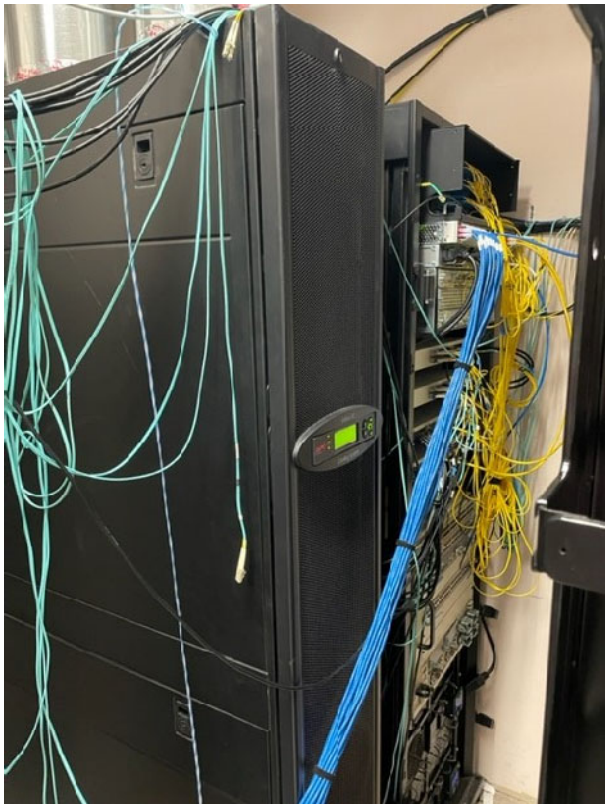


Image 3- Rack Cooling

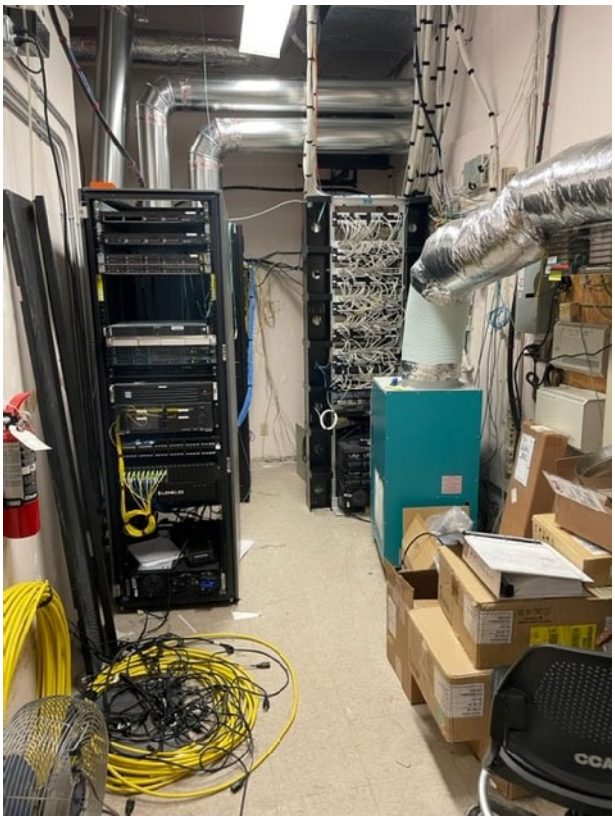


Image 2- View of Server Room

Image 4 - Supplemental Cooling Exhaust and Wall Mounted Abandoned Systems

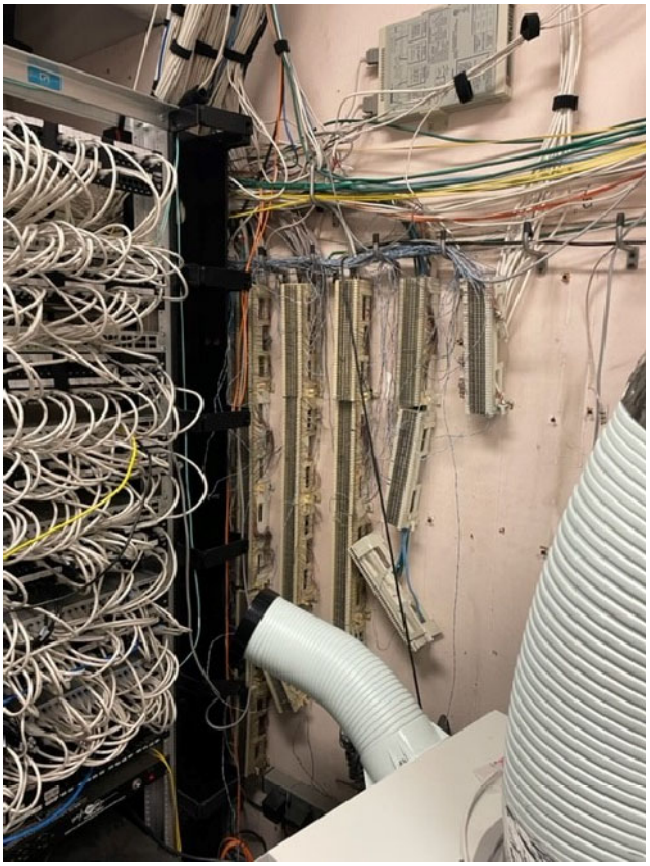


Image 5 - Abandoned Phone System

Image 7 - Abandoned TV Station and Current Wire Management

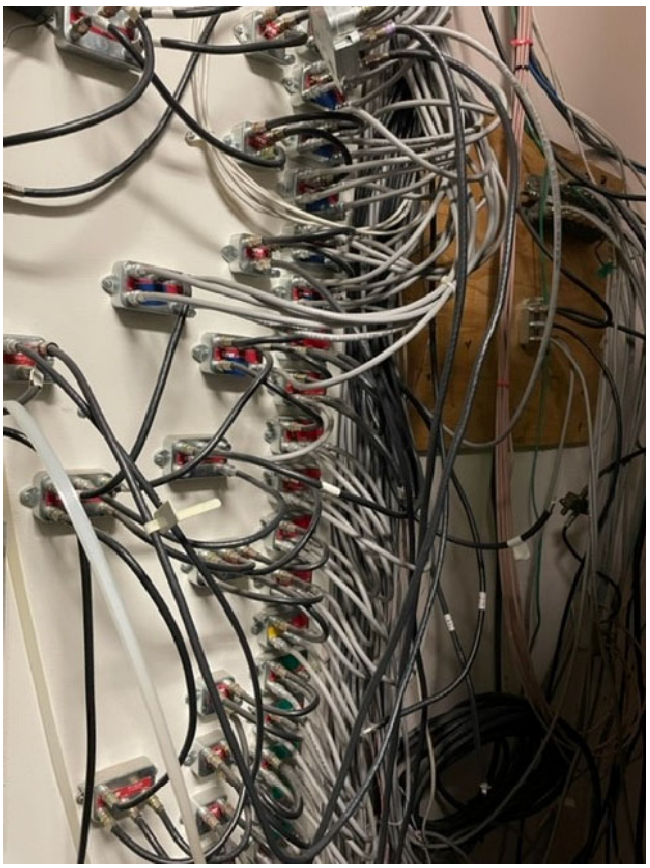


Image 6 - Abandoned Coaxial

Image 8 - Cooling Exhaust and Power Supply Panel

Fiscal Year 2023-24 Information Technology Request

Front Range Community College
Network and IT Security Upgrade

SHORT PROJECT DESCRIPTION

Front Range Community College (FRCC) is requesting one-time funding to upgrade the wireless networking infrastructure (WiFi) and IT security at their three campuses in Fort Collins, Westminster, and Longmont.

PRIORITY NUMBERS

2024033

Prioritized By	Priority	
CCHE	7 of 10	Recommended for funding.
OSPB	Not Prioritized	Not recommended for funding.

PRIOR APPROPRIATION AND REQUEST INFORMATION

Fund Source	Prior Approp.	FY 2023-24	FY 2024-25	Future Requests	Total Cost
CCF	$0	$3,420,000	$0	$0	$3,420,000
CF	$0	$380,000	$0	$0	$380,000
Total	$0	$3,800,000	$0	$0	$3,800,000

PROJECT STATUS

This is a new, never-before-requested project.

PROJECT DESCRIPTION

FRCC is requesting one-time funding to upgrade the wireless networking infrastructure (WiFi) and IT security at their three campuses in Fort Collins, Westminster, and Longmont. The upgrade will better support students on campus and remote learning as demand increases on the wireless network. Additionally, the project will improve campus security by creating an isolated network that will allow backup power to security cameras, access control, and radio systems and will ensure campus security is able to handle emergency events efficiently.

PROJECT JUSTIFICATION

The two most pressing needs identified by an analysis conducted by the college are the WiFi upgrade and the improvement of the campus security upgrade. Since the pandemic, students have increasingly used their own personal devices further putting stress on the WiFi network. It has become increasingly expensive to add cabling and other infrastructure to wire. The Campus Security and Preparedness (CSP) network traffic is merged with the main campus data network, which causes technical issues for the entire network and reduced functionality for CSP devices. The project will separate the two networks and replace IT CSP panels and switches which will enable the system to handle camera features such as bandwidth and higher resolution. Additionally, it would allow for new security measures such as handgun detection monitoring.

COST-BENEFIT ANALYSIS

FRCC was not able to provide a cost benefit analysis as outlined in Section 24-37-304 (1)(c.5)(V), C.R.S. but the college does expect the WiFi and security upgrades to provide numerous benefits to students and staff.

Fiscal Year 2023-24 Information Technology Request

Front Range Community College
Network and IT Security Upgrade

PROJECT COST INFORMATION

FRCC provided the following cost information:
- Professional Services: $256,768
- Associated Building Construction: $198,146
- Equipment: $2,999,631
- 10 percent contingency: $345,455

CASH FUNDS

FRCC is planning to use cash funds from unrestricted general reserves for the cash fund portion of this project.

PROJECT RESEARCH

FRCC engaged Advanced Network Management, Inc. to provide an analysis of how to modernize and improve FRCC's IT infrastructure network. According to the institution, the two most pressing needs were upgrading Wi-Fi and improving campus security network.

ADDITIONAL PROJECT INFORMATION

The college's IT team will lead this effort and will be supported by personnel from the Facilities Planning/Management and Facilities departments. After project completion, the IT department will be responsible for on-going support, maintenance and troubleshooting the system.

PROJECT SCHEDULE

	Start Date	Completion Date
Planning	July 2023	August 2023
Implementation	July 2023	June 2025
Testing	December 2023	June 2025
Closing	June 2025	July 2025

QUESTIONS

Q. How much funding will be given to each campus?

A. Unknown at this time. This will be identified when design is completed.

Q. Relatedly, who will be implementing this change management across the campuses?

A. The College's IT team will lead this effort and will be supported by personnel from our Facilities Planning/Management and Facilities departments. After project completion, the IT department will be responsible for on-going support, maintenance and troubleshooting the system.

Q. Will all campuses' technology cohesively work together or be handled separately?

A. Yes, the new technology will cohesively work as one system across the College's three campuses.

Q. Please provide more detail on the equipment portion of the requested funding.

A. Anticipated equipment that will be purchased as part of the project include but is not limited to:

- Backup generator (1). The Generator will be located at the Westminster campus and will be powered using natural gas.
- Wireless Access Points (375 – 400). Number of new wireless access points will depend on make, model and specifications. Deployment of units is generally based on number and size of campus buildings.
- Wireless Controllers (4). This is dependent upon the type of wireless access points purchased. For instance, web-based wireless access points do not require a controller.
- Switches for Wireless Access Points (32). Count is based on number of data closets at each campus.
- Switches for Cameras and Access Control (32). Count is based on number of data closets at each campus.
- Uninterruptible Power Supplies for Cisco Cloud Services Platform Switches and Wireless Access Points (32). Count is based on number of data closets at each campus.
- CAT 6a Cabling (375-400 Feet).
- 10GB Fiber Connections to Wireless Access Point Switches (32). Count is based on number of data closets at each campus.

Q. Are you able to quantify the anticipated efficiencies, cost-benefit analysis, return on investment, or total costs of ownership, as outlined in Section 24-37-304 (1)(c.5)(V), C.R.S.?

A. The benefits of this project for the College are not measured in terms of cost savings or a return on investment. The true benefits of this project are focused on providing improved, enhanced and more reliable WIFI connectivity services to our students and staff. The upgraded wireless network will greatly improve the student experience by allowing the College to better support students and their increasing demand on the network as they access it for multiple modalities while on campus including traditional on campus classes, online and real-time remote courses. Upgrading and improving the up-time of the WIFI network will help “future proof” FRCC against these upcoming needs.

Improving WIFI service will greatly benefit our Campus Security staff as the project will provide more reliable cellular communication throughout campus buildings. This will allow better customer service via phone calls and essential safety/security response when Campus Security staff are not in the office to answer a desk phone. Isolating the College’s security network and integrating that with a backup generator will ensure Campus Security is able to handle emergency situations without concern of having a limited 30-minute backup battery timeline, or losing power to security cameras, access control and radio systems.

Fiscal Year 2023-24 Information Technology Request

University of Northern Colorado
ERP Modernization and Cloud Migration

SHORT PROJECT DESCRIPTION

The University of Northern Colorado (UNC) is requesting one-time state funding to move the institution's on-premises enterprise resource planning (ERP) system to the cloud.

PRIORITY NUMBERS

2024034

Prioritized By	Priority	
CCHE	5 of 10	
OSPB	Not Prioritized	Not recommended for funding.

PRIOR APPROPRIATION AND REQUEST INFORMATION

Fund Source	Prior Approp.	FY 2023-24	FY 2024-25	Future Requests	Total Cost
CCF	$0	$1,291,651	$0	$0	$1,291,651
CF	$0	$55,222	$0	$0	$55,222
Total	$0	$1,346,873	$0	$0	$1,346,873

PROJECT STATUS

This request is similar to a previously requested project from FY 2022-23, which did not receive funding.

PROJECT DESCRIPTION

UNC is requesting one-time state funding to move the institution's on-premises ERP system to Ellucian's Managed Cloud. Since last year's funding request of $4.5 million was not approved, UNC has conducted additional research, which has resulted in a significant revamp of their project approach and a reduced funding request. Instead of moving the human resources and finance systems to a different vendor, UNC is now requesting funding to simply move the Ellucian on-premises ERP to the Ellucian Managed Cloud solution.

The project also involves creating a cloud-based Data Fabric, which will incorporate an Integration Platform-and-a-Service, a data hub, and analytics. This will allow UNC to centralize and modernize a multitude of data exchanges and will allow various major technologies used by the institution, such as the Student Information System, the Online Learning Management Software, multiple customer relationship management systems, and business systems to exchange data accurately and timely. This investment will also allow UNC to decouple from a single ERP vendor and provide greater flexibility for any future ERP adjustments.

PROJECT JUSTIFICATION

UNC has been using Ellucian Banner for its ERP/SIS system since 2006, which is currently maintained on-premises. Since that time, UNC has added additional systems and custom coding to keep up with their institutional needs. Moving to a cloud-based solution will allow UNC to take advantage of new functionality releases at a faster pace than with its current on-premises system, be more responsive to business demands and strategic initiatives, and deliver a higher quality user experience. UNC states that moving to a cloud-based solution will also improve the disaster recovery and security plans for the system.

Additionally, UNC has had trouble attracting and retaining the IT staff necessary to maintain the institution's current on-premises ERP/SIS system. Ellucian Banner has also reduced services and assistance available to clients who manage their own ERP environments.

COST-BENEFIT ANALYSIS

UNC estimates that this project will eliminate roughly $4 million in ERP technical debt. Examples of this technical debt include the cost of specialized IT staff dedicated to the maintenance of UNC's five ERP environments, the cost of specialized cybersecurity staff monitoring and patching security vulnerabilities, cyber insurance costs for maintaining data on-premises, and others.

PROJECT COST INFORMATION

UNC provided the following cost estimates for the project:

ERP Analysis: $75,000
Data Fabric: $202,500
ID Management: $225,000
Cloud ERP: $780,236
Project Contingency: $64,137

CASH FUNDS

The cash funds UNC is proposing to use for this project will come from existing operating budget and project funds.

PROJECT RESEARCH

UNC used quotes from competing ERP vendors, technology consultant input, and information shared with other peer Colorado institutions working on ERP/SIS modernization projects to develop the project scope and cost estimates.

ADDITIONAL PROJECT INFORMATION

Change management. UNC has a long-established change management process that follows Information Technology Infrastructure Library (ITIL) standards. UNC has a Change Advisory Board that meets weekly to review system changes. Additionally, the Information Management and Technology Department has a Project Management Office that meets monthly to review and approve changes to projects.

Collaboration. Attachment A contains a Letter of Intent from the Presidents of Metropolitan State University of Denver, the Colorado School of Mines, the University of Northern Colorado, and Colorado Mesa University, outlining their institutions' commitment to a collaborative approach to the implementation of new ERP systems at these institutions, which was provided to the Joint Technology Committee in 2021 as part of the FY 2022-23 budget process.

PROJECT SCHEDULE

	Start Date	Completion Date
Planning	July 2023	October 2023
Implementation	October 2023	July 2024
Testing	April 2024	July 2024
Closing	July 2024	August 2024

QUESTIONS

Q. Please describe how this request is different from the similar request that was submitted last year and what work, if any, the university has done with university cash funds on these efforts in the meantime. Relatedly, has the university already migrated the Student Information System to cloud services, or is the university anticipating returning to the legislature to ask for additional funding at a later date for that portion of last year's request?

A. This is the second year UNC has requested funding for modernizing our ERP, and the extra year has allowed us to conduct more analysis of our proposal. The additional research has enhanced our belief that our project is essential to UNC's students, faculty, and staff. After considerable assessments this past year, we changed our approach, which resulted in a reduced funding request from ~$4.5 million to ~$1.3 million. We believe this shows we have extensively researched this proposal, resulting in the best ROI and potentially significant savings of taxpayer dollars. We were able to significantly reduce our request by removing the migration of our HT and Finance systems to a different SaaS vendor. Our research indicates that SaaS vendors, such as Workday, are not mature and would result in a negative investment for UNC. A solution such as Ellucian's Managed Cloud would allow UNC to reduce tech debt and enhance our established ERP environments. Therefore, moving our entire on-premises ERP to a proven managed cloud solution provides the best ROI for UNC.

Although we were not selected for funding last year, UNC has proceeded with preparing our on-premises ERP for the eventual move to the Ellucian Managed Cloud solution. UNC has allocated cash funds to migrate our current on-premises server environments from Windows to Linux and hired Ellucian consultants to implement the Ellucian Ethos Data Framework. Migrating to Linux and implementing Ethos are prerequisites for the Ellucian Managed Cloud.

UNC has not migrated our Student Information System to a cloud service. We plan to move all ERP modules simultaneously. Therefore, we do not anticipate requiring additional funding in future years.

Q. It appears that the university is proposing a project that has a similar scope to the one being proposed by Colorado Mesa University. However, the request from CMU for their project is significantly more than UNC's request. Please describe the differences between the two projects and why there is such a significant cost difference between the two requests.

A. Last year, UNC and Colorado Mesa submitted parallel requests to modernize our ERPs. Colorado Mesa was able to proceed with a portion of its project without state funding. They began their ERP move to the managed cloud and a part of their Data Fabric project this fiscal year. This partnership will benefit UNC because we are learning from Colorado Mesa's ongoing implementation. Unlike Colorado Mesa, UNC cannot proceed without state funding. Additionally, a significant difference between our proposals is that Colorado Mesa will conduct an RFP to possibly move to an alternate SaaS vendor for their HR and Finance modules. UNC's research indicates that splitting our ERP vendors does not result in the best ROI for our institution.

May 20, 2021

Senator Jeff Bridges, Chair
Representative Brianna Titone, Vice Chair
Joint Technology Committee
200 East Colfax Avenue
Denver, CO 80203

Chair Bridges and Vice Chair Titone:

We are pleased to share that our institutions have made a formal commitment to jointly negotiate consortium pricing with a single vendor for our enterprise resource planning system (ERP) placement initiatives. We expect that our collaborative work with help reduce costs and yield implementation efficiencies across our individual projects in years ahead.

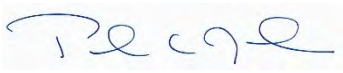
Our institutions have worked directly with a potential ERP vendor to discuss a pricing discount proportionate the volume of system licenses our five campuses would collectively secure. Conversations between our universities have also allowed us to identify common interest in custom ERP integrations for systems we utilize, such as Banner, Degree Works, Colorado Higher Education Insurance Benefits Alliance (CHEIBA) Trust, College Opportunity Fund (COF) and Colorado Operations Resource Engine (CORE). By pursuing these foundational integrations for all of our ERPs, system development and implementation become more time efficient and are expected to generate reductions in future phase costs for our projects. In addition to efficiencies in future costs and ongoing licensing expenses, our collaboration also formalizes a community of practice focused on ERP implementation that will provide opportunities for joint training, support, and problem solving. These areas of identified potential savings will benefit all five institutions throughout project implementation and create a chance for other Colorado colleges and universities to benefit from our work, should they embark on similar ERP replacement initiatives in the future.

Significant progress has been made over the last month to identify areas of possible cost reduction driven by the size and scale of our collective projects. A commitment of funds from the State would allow us to further this work to ensure economical pricing with a single ERP vendor.

We are hopeful that our collaborative efforts, and the expected future financial savings to our ERP projects, demonstrate our shared interest in an effective and cost-efficient solution to our needs. Thank you for your continued support of our requests.

Sincerely,

Janine A. Davidson, Ph.D.
President, Metropolitan State University of Denver



Paul C. Johnson, Ph.D.
President, Colorado School of Mines

Andy Feinstein, Ph.D.
President, University of Northern Colorado

Tim Foster
President, Colorado Mesa University

cc: Representative Mark Baisley
Representative Tracey Bernett
Senator Chris Kolker
Senator Kevin Priola

Fiscal Year 2023-24 Information Technology Request

Colorado State University -Pueblo
WiFi Technology Infrastructure Upgrade

SHORT PROJECT DESCRIPTION

Colorado State University Pueblo (CSUP) is requesting one-time state funding for their Wireless (WiFi) Technology Infrastructure Upgrade project.

PRIORITY NUMBERS

2024035

Prioritized By	Priority	
CCHE	10 of 10	
OSPB	Not Prioritized	Not recommended for funding.

PRIOR APPROPRIATION AND REQUEST INFORMATION

Fund Source	Prior Approp.	FY 2023-24	FY 2024-25	Future Requests	Total Cost
CCF	$0	$810,550	$0	$0	$810,550
Total	$0	$810,550	$0	$0	$810,550

PROJECT STATUS

This is a new, never-before-requested project.

PROJECT DESCRIPTION

CSUP is requesting one-time state funding for their WiFi Technology Infrastructure Upgrade project. According to CSUP, 100 percent of the institution's wireless network is now either at or beyond the industry standard of the useable lifespan of seven years. CSUP is requesting funding for an upgrade to the WiFi infrastructure that is essential to support teaching and learning.

PROJECT JUSTIFICATION

According to CSUP, 100 percent of the institution's wireless network is now either at or beyond the industry standard of the useable lifespan of seven years. According to the university, this has severely impacted student experience due to the unmet ability of the existing WiFi to support newer student devices and support current methods of device authentication necessary to register the network. After hiring a third party consultant, upgrading the aged wireless technology infrastructure was identified to be the highest priority.

COST-BENEFIT ANALYSIS

CSUP was not able to give a quantified cost benefit analysis as outlined in Section 24-37-304 (1)(c.5)(V), C.R.S. CSUP did make note of the efficiencies that will come from a more reliable and secure WiFi infrastructure.

PROJECT COST INFORMATION

CSUP provided the following project cost information:

- 412 High Density Wireless Access Points: $396,480
- 5 years Licenses and Support: $369,120
- 10 Desktop Access Points: $2,600
- 25 Outdoor Access Points: $17,350
- 25 Outdoor cabling and installation: $25,000

Fiscal Year 2023-24 Information Technology Request

Colorado State University -Pueblo
WiFi Technology Infrastructure Upgrade

CASH FUNDS

The request as originally submitted does not include any institutional cash funds. However, in response to staff questions, CSUP has indicated that they would be able to fund 10 percent of the following cash funds:
- Institutional funds: $56,055
- Student Technology Fee Funds: $25,000

PROJECT RESEARCH

CSUP commissioned a comprehensive analysis of CSUP's IT infrastructure, IT department operations, budget, skills, staff, support processes, and campus stakeholder experience. BerryDunn consultants emphasized a recommendation to address the problematic campus WiFi experience that was impacting teaching and learning. CSUP invested $25,000 in professional service hours with CSUP's network vendor to analyze and identify needs to re-engineer the authentication methods, SSID strategy, wireless channel planning, and engage students in focus groups to gauge progress over outcomes by establishing a current baseline of student experience. It will then be compared to the results after the project is implemented.

ADDITIONAL PROJECT INFORMATION

N/A

PROJECT SCHEDULE

	Start Date	Completion Date
Planning	July 2023	September 2023
Implementation	October 2023	May 2024
Testing	February 2024	June 2024
Closing	June 2024	June 2024

QUESTIONS

Q. CSUP received $2,754,622 for a one-time funding request last year to replace the campus telephone system and update additional IT infrastructure. How, if at all, does this project build on work that is being done with that funding?

A. In the 2022 – 2023 request process, CSU-P was funded for $457,829 out of an original $2,754,622 request. The JTC worked with CSU-P and CSU-System IT leadership on this change and opted to focus on the replacement of network edge switches which reside on the CSU-P campus. The VOIP infrastructure and blue light phone replacement made up the bulk of the original ~$2.7m request was not approved as a part of the final recommendation by the JTC.

Since receiving the approval for the $457,829 in funding, CSU-P has made significant progress with procurement and will utilize the allocation in this fiscal year.

Q. Does CSUP charge a student technology fee? If so, what are these fee revenues used for? Relatedly, are there any institution cash funds that could be used for this project?

A. Yes, CSU-P current charges a student technology fee based on student credit hours. These funds are used for technology applications and hardware that have a direct impact on student learning and the overall student experience.

After careful review of available student technology fee and institutional funds, CSU-P is able to fund up to 10% of the total cost of this proposal. Here is a breakdown of proposed CSU-P funding:

- Institutional funds: $56,055
- Student Technology Fee Funds: $25,000

- Total: $81,055

Q. Are you able to quantify the anticipated efficiencies, cost-benefit analysis, return on investment, or total costs of ownership, as outlined in Section 24-37-304 (1)(c.5)(V), C.R.S.?

A. Yes, this request would replace access points that are significantly past their recommended “end of life” replacement schedule and do not currently deliver the functionality or coverage needed within CSU-P buildings. Additionally, there is currently a cybersecurity risk with the outdated access points on the CSU-P campus. By replacing these, we would procure modern access points which have increased security controls and enhance our ability to keep our students, faculty, and staff secure from malicious attackers.

Currently, there are a significant number of CSU-P campus buildings that do not have proper coverage and include areas that have a complete lack of Wi-Fi coverage. Through the procurement of high-density access points, as well as outdoor access points, we would ensure that areas of high student traffic (academic buildings, library, etc.) are well covered allowing students to interact with technology in their classrooms, library, student union, etc.

It's also important to note that as the CSU-System looks to align additional IT services across campuses, the procurement of this equipment would be done in partnership with the CSU-FC IT organization (which purchases similar access points annually) in an effort to increase efficiencies across the campus by aligning on similar network technology platforms.

Q. Colorado State University Fort Collins mentioned in their funding request for a Network Hardware Upgrade that the project involves multiple institutions including CSUP. What funding have you received through that? Relatedly, how has that impacted your request for this funding?

A. While CSU-P has not received direct funding, the CSU-FC Network Hardware Upgrade has indeed had a direct impact on the entire CSU-System as the services and systems provide by CSU-FC enable shared IT applications and infrastructure throughout the system. An example of this is that the network hardware upgrade has been foundational to the infrastructure that underlies the shared Banner Student Information System. This student information system is used by both CSU-P and CSU-FC.

Additionally, the CSU-FC Network Hardware Upgrade will enable the alignment of network infrastructure across the entire CSU-System, which is projected to reduce overall costs, increase IT security, and enable team collaboration and workflows across campuses.

The wireless technology infrastructure upgrade proposed for the current request is comprised of high-density wireless access points that will work with the soon to be aligned CSU-System network. These access points will provide coverage in buildings (413 access points), outdoors (25 access points), and others (10 access points) for off campus university events and remote locations. Due to the nature of these physical devices residing on the CSU-P campus, there is not a direct impact from the CSU-FC Network Hardware Upgrade request. Instead, there is alignment between the two to provide the needed wireless networking to the CSU-P students, faculty, and staff.